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Network OS YANG

Reference Manual

Supporting Network OS v4.0.0

BROCADE

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About This Document

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How this document is organized

This document is organized to help you find the information that you want as quickly and easily as possible.

The document contains the following components:

- [Chapter 1, “Using YANG”](#) introduces the YANG language and provides information about how to use this manual.
- [Chapter 2, “YANG Modules”](#) provides an overview and structural details for each YANG module.
- [Appendix A, “Custom RPCs”](#) lists the custom RPCs defined in the YANG modules and identifies the host module for each.
- [Appendix B, “Actions”](#) lists the functions implemented by proprietary actions in the YANG modules.

Supported hardware and software

In those instances in which procedures or parts of procedures documented here apply to some switches but not to others, this guide identifies exactly which switches are supported and which are not.

Although many different software and hardware configurations are tested and supported by Brocade Communications Systems, Inc. for Network OS v4.0.0, documenting all possible configurations and scenarios is beyond the scope of this document.

The following hardware platforms are supported by this release of Network OS.

- Brocade VDX 6710
- Brocade VDX 6720

- Brocade VDX 6730
- Brocade VDX 6740
- Brocade VDX 6740T
- Brocade VDX 8770-4
- Brocade VDX 8770-8

Document conventions

This section describes text formatting conventions and important notice formats used in this document.

Text formatting

The narrative-text formatting conventions that are used are as follows:

bold text	Identifies command names Identifies the names of user-manipulated GUI elements Identifies keywords and operands Identifies text to enter at the GUI or CLI
<i>italic text</i>	Provides emphasis Identifies variables Identifies paths and Internet addresses Identifies document titles
<code>code text</code>	Identifies CLI output Identifies command syntax examples

Notes, cautions, and warnings

The following notices and statements are used in this manual. They are listed below in order of increasing severity of potential hazards.

NOTE

A note provides a tip, guidance, or advice, emphasizes important information, or provides a reference to related information.

ATTENTION

An Attention statement indicates potential damage to hardware or data.



CAUTION

A Caution statement alerts you to situations that can be potentially hazardous to you or cause damage to hardware, firmware, software, or data.



DANGER

A Danger statement indicates conditions or situations that can be potentially lethal or extremely hazardous to you. Safety labels are also attached directly to products to warn of these conditions or situations.

Key terms

For definitions specific to Brocade and Fibre Channel, see the technical glossaries on MyBrocade. See “[Brocade resources](#)” on page x for instructions on accessing MyBrocade.

For definitions of SAN-specific terms, visit the Storage Networking Industry Association online dictionary at:

<http://www.snia.org/education/dictionary>

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Oracle Corporation	Oracle, Java
Netscape Communications Corporation	Netscape
Red Hat, Inc.	Red Hat, Red Hat Network, Maximum RPM, Linux Undercover

Additional information

This section lists additional Brocade and industry-specific documentation that you might find helpful.

Brocade resources

To get up-to-the-minute information, go to <http://my.brocade.com> to register at no cost for a user ID and password.

White papers, online demonstrations, and data sheets are available through the Brocade website at:

<http://www.brocade.com/products-solutions/products/index.page>

For additional Brocade documentation, visit the Brocade website:

<http://www.brocade.com>

Release notes are available on the MyBrocade website.

Other industry resources

For additional resource information, visit the Technical Committee T11 website. This website provides interface standards for high-performance and mass storage applications for Fibre Channel, storage management, and other applications:

<http://www.t11.org>

For information about the Fibre Channel industry, visit the Fibre Channel Industry Association website:

<http://www.fibrechannel.org>

Getting technical help

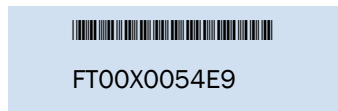
Contact your switch support supplier for hardware, firmware, and software support, including product repairs and part ordering. To expedite your call, have the following information available:

1. General Information

- Switch model
- Switch operating system version
- Software name and software version, if applicable
- Error numbers and messages received
- **supportSave** command output
- Detailed description of the problem, including the switch or fabric behavior immediately following the problem, and specific questions
- Description of any troubleshooting steps already performed and the results
- Serial console and Telnet session logs
- syslog message logs

2. Switch Serial Number

The switch serial number and corresponding bar code are provided on the serial number label, as illustrated below:



The serial number label is located on the switch ID pull-out tab located on the bottom of the port side of the switch.

Document feedback

Quality is our first concern at Brocade and we have made every effort to ensure the accuracy and completeness of this document. However, if you find an error or an omission, or you think that a topic needs further development, we want to hear from you. Forward your feedback to:

documentation@brocade.com

Provide the title and version number of the document and as much detail as possible about your comment, including the topic heading and page number and your suggestions for improvement.

Using YANG

In this chapter

- [Yang overview](#) 1
- [Using the Network OS YANG Reference Manual](#) 1

Yang overview

YANG is a data modeling language. It is used to model configuration and state data for manipulation by the Network Configuration Protocol (NETCONF) using NETCONF remote procedure calls (RPCs).

Refer to *RFC 6020, YANG - A Data Modeling Language for the Network Configuration Protocol (NETCONF)* for full; details of how to use YANG, and for a reference of all the features of the YANG language.

Using the Network OS YANG Reference Manual

This manual provides a reference for YANG modules supported by Network OS v4.0.0.

Each module provides a data model for a specific part of the system. It models the data using one or more of the following entities:

- Top-level nodes and their subtrees
- Subtrees that augment nodes in other YANG modules
- Custom RPCs
- Custom actions that make use of the proprietary action mechanism

For each module, this manual provides a high-level description of what the module does. It also provides the structure of each top-level node, external augmentation, custom RPC, and action.

The **pyang** command with the **-f tree** option is used to illustrate the YANG code. This utility resolves the uses and augments statements to provide an easy-to-read view of the structure of the YANG code. The following example shows part of the `brocade-interface` module.

```
module: brocade-interface
  +--rw interface
  |   +--rw fc-port [name]
  |   |   +--rw name                interface-type
  |   |   +--rw fc-speed-cfg?       fc-speed-cfg-type
  |   |   +--rw fill-word?          fc-fillword-cfg-type
  |   |   +--rw long-distance?      fc-long-distance-cfg-type
  |   |   +--rw vc-link-init?       fc-vc-link-init-cfg-type
  |   |   +--rw desire-distance?    desire-distance-type
  |   |   +--rw isl-r_rdy-mode?     empty
```

```
|      +--rw trunk-enable?      empty
|      +--rw shutdown?         empty
```

In addition to showing the structure, the output of the **pyang -f tree** command provides information about each node, as shown in [Figure 1](#).

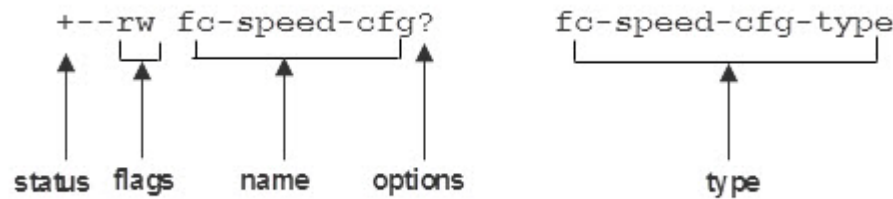


FIGURE 1 Syntax of pyang output

Field definitions and possible values follow:

status	Status of the node can be one of the following values: <ul style="list-style-type: none">+ Currentx Deprecatedo Obsolete
flags	The type of information can be one of the following values: <ul style="list-style-type: none">rw Read-write—The node contains configuration dataro Read-only—The node contains operational data-x RPC statement-n Notification (not supported)
name	The name of the node can be further modified by one of the following values: <ul style="list-style-type: none">(name) Choice node:(name) Case nodeprefix:name Augmented from external module
options	The following optional values can be used: <ul style="list-style-type: none">? Optional leaf or presence container* Leaf list[keys] Keys for a list
type	The type of the leaf or leaf-list. If the specified type is other than one of the basic types, then the type is defined in a typedef statement in the .yang file.

YANG Modules

brocade-aaa

Description Provides a data model for configuring authentication, authorization, and accounting (AAA). This module supports authentication performed by a local, RADIUS, TACACS, or LDAP server.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-aaa
  +--rw aaa-config
  |   +--rw aaa
  |   |   +--rw authentication
  |   |   |   +--rw login
  |   |   |   |   +--rw first?    enumeration
  |   |   |   |   +--rw second?   enumeration
  |   |   +--rw accounting
  |   |   |   +--rw exec
  |   |   |   |   +--rw defaultacc
  |   |   |   |   |   +--rw start-stop
  |   |   |   |   |   |   +--rw server-type?  acc_srv_type
  |   |   +--rw commands
  |   |   |   +--rw defaultacc
  |   |   |   |   +--rw start-stop
  |   |   |   |   |   +--rw server-type?  acc_srv_type
  +--rw username [name]
  |   +--rw name          string
  |   +--rw user-password  user-passwd
  |   +--rw encryption-level? enumeration
  |   +--rw role           string
  |   +--rw desc?          string
  |   +--rw enable?        username-enable
  +--rw service
  |   +--rw password-encryption? empty
  +--rw user
  |   +--ro unlock
  |   |   +--ro input
  |   |   |   +--ro username    string
  |   |   |   +--ro rbridge-id? common-def:rbridge-id-all-type
  |   |   +--ro output
  |   |   |   +--ro Result?    string
  +--rw role
  |   +--rw name [name]
  |   |   +--rw name    string
  |   |   +--rw desc?   string
  +--rw radius-server
  |   +--rw host [hostname]
  |   |   +--rw hostname    string
  |   |   +--rw auth-port?  rad-auth-port
  |   |   +--rw protocol?   rad-auth-protocols
  |   |   +--rw key?        string
  |   |   +--rw retries?    uint32

```

```

|         +--rw timeout?      uint32
+--rw tacacs-server
|   +--rw host [hostname]
|   |   +--rw hostname      string
|   |   +--rw port?        tac-auth-port
|   |   +--rw protocol?    tac-auth-protocols
|   |   +--rw key?         string
|   |   +--rw retries?     uint8
|   |   +--rw timeout?     uint8
+--rw ldap-server
|   +--rw host [hostname]
|   |   +--rw hostname      string
|   |   +--rw port?        ldap-auth-port
|   |   +--rw retries?     uint8
|   |   +--rw timeout?     uint8
|   |   +--rw basedn?      string
+--rw maprole
|   +--rw group [ad-group]
|   |   +--rw ad-group      string
|   |   +--rw switch-role  string
+--rw password-attributes
|   +--rw min-length?       uint32
|   +--rw max-retry?        uint32
|   +--rw character-restriction
|   |   +--rw upper?        uint32
|   |   +--rw lower?        uint32
|   |   +--rw numeric?      uint32
|   |   +--rw special-char? uint32
+--rw banner
|   +--rw login?  string
+--rw rule [index]
|   +--rw index      uint32
|   +--rw action?    rule-action
|   +--rw operation? rule-operation
|   +--rw role?      string
|   +--rw command
|   |   +--rw (cmdlist)?
|   |   |   +--:(container-cmds)
|   |   |   |   +--rw enumList?          enumeration
|   |   |   +--:(interface-a)
|   |   |   |   +--rw interface-int
|   |   |   |   |   +--rw interface-cont?
|   |   |   +--:(interface-b)
|   |   |   |   +--rw interface-fcoe
|   |   |   |   |   +--rw interface
|   |   |   |   |   |   +--rw fcoe-cont?
|   |   |   +--:(interface-c)
|   |   |   |   +--rw interface-te
|   |   |   |   |   +--rw interface
|   |   |   |   |   |   +--rw tengigabitethernet-cont?
|   |   |   +--:(interface-d)
|   |   |   |   +--rw interface-fcoe-leaf
|   |   |   |   |   +--rw interface
|   |   |   |   |   |   +--rw fcoe-leaf?  string
|   |   |   +--:(interface-e)
|   |   |   |   +--rw interface-te-leaf
|   |   |   |   |   +--rw interface
|   |   |   |   |   |   +--rw tengigabitethernet-leaf?  string
|   |   |   +--:(interface-f)
|   |   |   |   +--rw interface-mgmt

```



```

|         +--rw interface
|         +--rw management-cont?
+--:(interface-g)
|   +--rw interface-ge
|   +--rw interface
|   +--rw gigabitethernet-cont?
+--:(interface-h)
|   +--rw interface-ge-leaf
|   +--rw interface
|   +--rw gigabitethernet-leaf?   string
+--:(interface-i)
|   +--rw interface-pc
|   +--rw interface
|   +--rw port-channel-cont?
+--:(interface-j)
|   +--rw interface-pc-leaf
|   +--rw interface
|   +--rw port-channel-leaf?     string
+--:(interface-k)
|   +--rw interface-vlan
|   +--rw interface
|   +--rw vlan-cont?
+--:(interface-l)
|   +--rw interface-vlan-leaf
|   +--rw interface
|   +--rw vlan-leaf?             string
+--:(copy-a)
|   +--rw copy-cp
|   +--rw copy-cont?
+--:(copy-b)
|   +--rw copy-running
|   +--rw copy
|   +--rw running-config-cont?
+--:(copy-c)
|   +--rw copy-support
|   +--rw copy
|   +--rw support-cp?
+--:(clear-a)
|   +--rw clear-cl
|   +--rw clear-cont?
+--:(clear-b)
|   +--rw clear-logging
|   +--rw clear
|   +--rw logging-cont?
+--:(clear-c)
|   +--rw clear-support
|   +--rw clear
|   +--rw support-cl?
+--:(protocol-a)
|   +--rw protocol-pr
|   +--rw protocol-cont?
+--:(protocol-b)
|   +--rw protocol-spanning
|   +--rw protocol
|   +--rw spanning-tree-cont?
+--:(protocol-c)
|   +--rw protocol-lldp
|   +--rw protocol
|   +--rw lldp-cont?
+--rw alias-config

```

2 brocade-aaa

```
    +--rw alias [name]
    |   +--rw name      string
    |   +--rw expansion  string
    +--rw user [name]
    |   +--rw name      string
    |   +--rw alias [name]
    |       +--rw name      string
    |       +--rw expansion  string
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
+--rw clear
|   +--rw brcd-aaa:login
|   |   +--ro brcd-aaa:sessions
|   |   |   +--ro brcd-aaa:input
|   |   |   |   +--ro brcd-aaa:rbridge-id?  common-def:rbridge-id-all-type
|   |   |   +--ro brcd-aaa:output
```

RPCs None

Actions Proprietary actions defined in this module follow.

Unlock a user account:

```
+--rw user
|   +--action unlock
|   |   +--input
|   |   |   +--rw username      string
|   |   +--output
|   |   |   +--ro Result        string
```

brocade-aaa-ext

Description	Provides extensions to the brocade-aaa module for returning operational state information.
Top-level containers	None
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre> module: brocade-common-def +--rw aaa-users +--ro users +--ro input </pre>
RPCs	<p>Custom RPCs defined in this module follow.</p> <p>Return user information:</p> <pre> +---x user-session-info +--ro output +--ro user-role? string </pre>
Actions	<p>Proprietary actions defined in this module follow.</p> <pre> +--rw users +--input +--rw rbridge-id common-def:rbridge-id-all-type </pre>

brocade-arp

Description Provides a data model for managing the Address Resolution Protocol (ARP).

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-arp
  +--rw hide-arp-holder
    o--rw system-max
      | +--rw arp?   uint32
    +--rw arp-entry [arp-ip-address]
      +--rw arp-ip-address          inet:ipv4-address
      +--rw mac-address-value?     mac-access-list:mac-address-type
      +--rw interfacename?         enumeration
      +--rw (interfacetype)?
        +--:(GigabitEthernet)
          | +--rw GigabitEthernet?   interface:interface-type
        +--:(TenGigabitEthernet)
          | +--rw TenGigabitEthernet? interface:interface-type
        +--:(FortyGigabitEthernet)
          | +--rw FortyGigabitEthernet? interface:interface-type
        +--:(Ve)
          +--rw Ve?                  interface:vlan-type
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-rbridge
  +--rw rbridge-id [rbridge-id]
  +--rw arp:arp-entry [arp-ip-address]
    +--rw arp:arp-ip-address          inet:ipv4-address
    +--rw arp:mac-address-value?     mac-access-list:mac-address-type
    +--rw arp:interfacename?         enumeration
    +--rw (interfacetype)?
      +--:(GigabitEthernet)
        | +--rw arp:GigabitEthernet?   interface:interface-type
      +--:(TenGigabitEthernet)
        | +--rw arp:TenGigabitEthernet? interface:interface-type
      +--:(FortyGigabitEthernet)
        | +--rw arp:FortyGigabitEthernet? interface:interface-type
      +--:(Ve)
        +--rw arp:Ve?                  interface:vlan-type
```

RPCs Custom RPCs defined in this module follow.

Return ARP entries of the managed entity:

```
rpcs:
  +--x get-arp
    +--ro input
      | +--ro (input-type)?
      |   +--:(interface)
      |     | +--ro interface-type?   enumeration
      |     | +--ro interface-name?   union
      |     +--:(dynamic)
      |       | +--ro dynamic?        empty
      |       +--:(static)
      |         | +--ro static?        empty
      |         +--:(ip)
      |           +--ro ip-address?    inet:ipv4-address
    +--ro output
```

```
+--ro arp-entry [ip-address]
  +--ro ip-address          inet:ipv4-address
  +--ro mac-address?        mac-access-list:mac-address-type
  +--ro interface-type?     enumeration
  +--ro interface-name?     union
  +--ro is-resolved?        boolean
  +--ro age?                string
  +--ro entry-type?         enumeration
```

Actions None

brocade-beacon

Description	Provides a data model enabling and disabling the interface beacon and chassis beacon.
Top-level containers	<p>Top-level nodes and their subtree hierarchies follow.</p> <pre> module: beacon +--rw beacon +--rw enable +--rw disable </pre>
External augmentations	None
RPCs	None
Actions	<p>Proprietary actions defined in this module follow.</p> <p>Enable the interface beacon:</p> <pre> +--rw beacon +--rw enable +--action interface +--input +--ro (interface-type) +--:(fortigigabitethernet) +--rw fortygigabitethernet string +--:(gigabitethernet) +--rw gigabitethernet string +--:(tengigabitethernet) +--rw tengigabitethernet string </pre> <p>Disable the interface beacon:</p> <pre> +--rw beacon +--rw disable +--action interface +--input +--ro (interface-type) +--:(fortigigabitethernet) +--rw fortygigabitethernet string +--:(gigabitethernet) +--rw gigabitethernet string +--:(tengigabitethernet) +--rw tengigabitethernet string </pre> <p>Enable the chassis beacon:</p> <pre> +--rw beacon +--rw enable +--action chassis </pre> <p>Disable the chassis beacon:</p> <pre> +--rw beacon +--rw disable +--action chassis </pre>

brocade-bgp

Description This management module is an instrumentation to manage BGP Protocol.

Top-level containers None

External augmentations Nodes that augment other modules and their subtrees follow.

```

module: brocade-rbridge
  +--rw rbridge-id [rbridge-id]
  +--rw rbridge-id                               uint32
  +--rw router
    +--rw bgp:bgp [vrf-name]
    +--rw bgp:vrf-name                           string
    +--rw bgp:router-bgp-cmds-holder
    +--rw bgp:router-bgp-attributes
      | +--rw bgp:local-as?                       local-as-type
      | +--rw bgp:always-compare-med?             empty
      | +--rw bgp:compare-med-empty-aspath?       empty
      | +--rw bgp:med-missing-as-worst?           empty
      | +--rw bgp:as-path-ignore?                 empty
      | +--rw bgp:compare-routerid?               empty
      | +--rw bgp:install-igp-cost?               empty
      | +--rw bgp:cluster-id
      | | +--rw (ch-cluster-id)?
      | | | +--:(ca-cluster-id)
      | | | | +--rw bgp:cluster-id-value?         decimal-number
      | | | | +--:(ca-cluster-id-ipv4-address)
      | | | | | +--rw bgp:cluster-id-ipv4-address? inet:ipv4-address
      | +--rw bgp:default-local-preference?       decimal-number
      +--rw bgp:distance
      | +--rw bgp:ext-route-distance?             ext-route-distance
      | +--rw bgp:int-route-distance?             int-route-distance
      | +--rw bgp:lcl-route-distance?             lcl-route-distance
      +--rw bgp:capability
      | +--rw bgp:as4-enable?                     empty
      +--rw bgp:maxas-limit
      | +--rw bgp:in
      | | +--rw bgp:num-as-in-path?               num-as-in-path
      +--rw bgp:enforce-first-as?                 empty
      +--rw bgp:fast-external-fallover?           empty
      +--rw bgp:timers
      | +--rw bgp:keep-alive?                     nei-keep-alive
      | +--rw bgp:hold-time?                      nei-hold-time
      +--rw bgp:log-dampening-debug?              empty
      +--rw bgp:peer-grps
      | +--rw bgp:neighbor-peer-grp [router-bgp-neighbor-peer-grp]
      | | +--rw bgp:router-bgp-neighbor-peer-grp  bgp-peergroup
      | | +--rw bgp:peer-group-name?              empty
      | | +--rw bgp:remote-as?                    bgp-remote-as
      | | +--rw bgp:description?                  neighbor-description
      | | +--rw bgp:shutdown
      | | | +--rw bgp:shutdown-status?            empty
      | | | +--rw bgp:generate-rib-out?           empty
      | | +--rw bgp:local-as
      | | | +--rw bgp:local-as-value?             local-as-num
      | | | +--rw bgp:no-prepend?                 empty

```

```

+--rw bgp:next-hop-self
|   +--rw (ch-next-hop-self-type)?
|   |   +--:(ca-next-hop-self-always)
|   |   |   +--rw bgp:next-hop-self-always?    empty
|   |   +--:(ca-next-hop-self-status)
|   |   |   +--rw bgp:next-hop-self-status?    empty
+--rw bgp:advertisement-interval
|   +--rw bgp:value?    adv-value
+--rw bgp:ebgp-multihop
|   +--rw (ch-ebgp-multihop-type)?
|   |   +--:(ca-ebgp-multihop-flag)
|   |   |   +--rw bgp:ebgp-multihop-flag?    empty
|   |   +--:(ca-ebgp-multihop-count)
|   |   |   +--rw bgp:ebgp-multihop-count?    uint32
+--rw bgp:maxas-limit
|   +--rw bgp:in
|   |   +--rw (ch-maxas-limit)?
|   |   |   +--:(ca-maxas-limit-enable)
|   |   |   |   +--rw bgp:num-as-in-as-path?    num-as-in-as-path
|   |   |   +--:(ca-maxas-limit-disable)
|   |   |   |   +--rw bgp:maxas-limit-disable?    empty
+--rw bgp:password?    bgp-password
+--rw bgp:enforce-first-as
|   +--rw bgp:nei-enforce-first-as?    empty
|   +--rw bgp:nei-enforce-first-as-disable?    empty
+--rw bgp:neighbor-capability
|   +--rw bgp:as4
|   |   +--rw bgp:neighbor-as4-enable?    empty
|   |   +--rw bgp:neighbor-as4-disable?    empty
+--rw bgp:timers
|   +--rw bgp:nei-keep-alive?    nei-keep-alive
|   +--rw bgp:nei-hold-time?    nei-hold-time
+--rw bgp:update-source
|   +--rw (ch-update-source)?
|   |   +--:(ca-ipv4)
|   |   |   +--rw bgp:sip-ipv4-address?    sip-ipv4-address
|   |   +--:(ca-eth)
|   |   |   +--rw bgp:ethernet-interface
|   |   |   |   +--rw bgp:interface-type?    enumeration
|   |   |   |   |   +--rw bgp:ethernet?    update-source-ethernet-type
|   |   +--:(ca-loopback)
|   |   |   +--rw bgp:loopback?    loopback-interface
|   |   +--:(ca-ve)
|   |   |   +--rw bgp:ve-interface?    ve-interface
+--rw bgp:remove-private-as?    empty
+--rw bgp:as-override?    empty
+--rw bgp:soft-reconfiguration
|   +--rw bgp:inbound?    empty
+--rw bgp:neighbor-ips
|   +--rw bgp:neighbor-addr [router-bgp-neighbor-address]
|   |   +--rw bgp:router-bgp-neighbor-address    inet:ip-address
|   |   +--rw bgp:remote-as?    bgp-remote-as
|   |   +--rw bgp:associate-peer-group?    bgp-peergroup
|   |   +--rw bgp:description?    neighbor-description
+--rw bgp:shutdown
|   +--rw bgp:shutdown-status?    empty
|   +--rw bgp:generate-rib-out?    empty
+--rw bgp:local-as
|   +--rw bgp:local-as-value?    local-as-num
|   +--rw bgp:no-prepend?    empty

```



```

+--rw bgp:next-hop-self
|   +--rw (ch-next-hop-self-type)?
|   |   +--:(ca-next-hop-self-always)
|   |   |   +--rw bgp:next-hop-self-always?    empty
|   |   +--:(ca-next-hop-self-status)
|   |   |   +--rw bgp:next-hop-self-status?    empty
+--rw bgp:advertisement-interval
|   +--rw bgp:value?    adv-value
+--rw bgp:ebgp-multihop
|   +--rw (ch-ebgp-multihop-type)?
|   |   +--:(ca-ebgp-multihop-flag)
|   |   |   +--rw bgp:ebgp-multihop-flag?    empty
|   |   +--:(ca-ebgp-multihop-count)
|   |   |   +--rw bgp:ebgp-multihop-count?    uint32
+--rw bgp:maxas-limit
|   +--rw bgp:in
|   |   +--rw (ch-maxas-limit)?
|   |   |   +--:(ca-maxas-limit-enable)
|   |   |   |   +--rw bgp:num-as-in-as-path?    num-as-in-as-path
|   |   |   +--:(ca-maxas-limit-disable)
|   |   |   |   +--rw bgp:maxas-limit-disable?    empty
+--rw bgp:password?    bgp-password
+--rw bgp:enforce-first-as
|   +--rw bgp:nei-enforce-first-as?    empty
|   +--rw bgp:nei-enforce-first-as-disable?    empty
+--rw bgp:neighbor-capability
|   +--rw bgp:as4
|   |   +--rw bgp:neighbor-as4-enable?    empty
|   |   +--rw bgp:neighbor-as4-disable?    empty
+--rw bgp:timers
|   +--rw bgp:nei-keep-alive?    nei-keep-alive
|   +--rw bgp:nei-hold-time?    nei-hold-time
+--rw bgp:update-source
|   +--rw (ch-update-source)?
|   |   +--:(ca-ipv4)
|   |   |   +--rw bgp:sip-ipv4-address?    sip-ipv4-address
|   |   +--:(ca-eth)
|   |   |   +--rw bgp:ethernet-interface
|   |   |   |   +--rw bgp:interface-type?    enumeration
|   |   |   |   |   +--rw bgp:ethernet?    update-source-ethernet-type
|   |   +--:(ca-loopback)
|   |   |   +--rw bgp:loopback?    loopback-interface
|   |   +--:(ca-ve)
|   |   |   +--rw bgp:ve-interface?    ve-interface
+--rw bgp:remove-private-as?    empty
+--rw bgp:as-override?    empty
+--rw bgp:soft-reconfiguration
|   +--rw bgp:inbound?    empty
+--rw bgp:address-family
+--rw bgp:ipv4
+--rw bgp:ipv4-unicast?
+--rw bgp:af-ipv4-uc-and-vrf-cmds-call-point-holder
|   +--rw bgp:bgp- redistribute-internal?    empty
+--rw bgp: redistribute
+--rw bgp:connected
|   +--rw bgp: redistribute-connected?    empty
|   +--rw bgp:unicast-metric?    conn-metric
|   +--rw bgp: redistribute-route-map?    rmap-type
+--rw bgp:ospf
|   +--rw bgp: redistribute-ospf?    empty

```

```

| | | +--rw bgp:match
| | | | +--rw bgp:ospf-internal? empty
| | | | +--rw bgp:ospf-external1? empty
| | | | +--rw bgp:ospf-external2? empty
| | | +--rw bgp:ospf-metric? conn-metric
| | | +--rw bgp:ospf-route-map? rmap-type
+--rw bgp:static
| +--rw bgp:redistribute-static? empty
| +--rw bgp:unicast-static-metric? conn-metric
| +--rw bgp:static-route-map? rmap-type
+--rw bgp:static-network [static-network-address]
| +--rw bgp:static-network-address inet:ipv4-prefix
| +--rw bgp:static-network-distance? sdistance
+--rw bgp:aggregate-address [aggregate-ip-prefix]
| +--rw bgp:aggregate-ip-prefix inet:ipv4-prefix
| +--rw bgp:advertise-map? advertise-map
| +--rw bgp:as-set? empty
| +--rw bgp:attribute-map? attribute-map
| +--rw bgp:summary-only? empty
| +--rw bgp:suppress-map? suppress-map
+--rw bgp:network [network-ipv4-address]
| +--rw bgp:network-ipv4-address inet:ipv4-prefix
| +--rw bgp:network-weight? absolute-decimal-number
| +--rw bgp:backdoor? empty
| +--rw bgp:network-route-map? rmap-type
+--rw bgp:af-ipv4-neighbor-peergroup-holder
| +--rw bgp:af-ipv4-neighbor-peergroup [af-ipv4-neighbor-peergroup-name]
| | +--rw bgp:af-ipv4-neighbor-peergroup-name bgp-peergroup
| | +--rw bgp:activate? empty
| | +--rw bgp:filter-list
| | | +--rw bgp:direction-in
| | | | +--rw bgp:filter-list-direction-in-acl-name? ip-filter-name
| | | | +--rw bgp:filter-list-name-direction-in? empty
| | | +--rw bgp:direction-out
| | | | +--rw bgp:filter-list-direction-out-acl-name? ip-filter-name
| | | | +--rw bgp:filter-list-name-direction-out? empty
| | +--rw bgp:maximum-prefix
| | | +--rw bgp:max-prefix-limit? max-prefix-limit
| | | +--rw bgp:threshold-holder
| | | | +--rw bgp:threshold? max-prefix-threshold
| | | | +--rw bgp:teardown? empty
| | +--rw bgp:default-originate
| | | +--rw bgp:default-originate-status? empty
| | | +--rw bgp:default-originate-route-map? rmap-type
| +--rw bgp:prefix-list
| | +--rw bgp:direction-in
| | | +--rw bgp:prefix-list-direction-in-prefix-name?
nei-prefix-list-filter
| | | +--rw bgp:prefix-list-direction-in? empty
| | +--rw bgp:direction-out
| | | +--rw bgp:prefix-list-direction-out-prefix-name?
nei-prefix-list-filter
| | | +--rw bgp:prefix-list-direction-out? empty
+--rw bgp:neighbor-route-map
| +--rw bgp:neighbor-route-map-direction-in
| | +--rw bgp:neighbor-route-map-name-direction-in?
common-def:name-string64
| | +--rw bgp:neighbor-route-map-direction-out
| | | +--rw bgp:neighbor-route-map-name-direction-out?
common-def:name-string64

```

```

|      +--rw bgp:route-reflector-client?          empty
|      +--rw bgp:send-community
|      |      +--rw bgp:send-community-status?    empty
|      |      +--rw bgp:both?                    empty
|      |      +--rw bgp:extended?                 empty
|      |      +--rw bgp:standard?                 empty
|      +--rw bgp:unsuppress-map
|      |      +--rw bgp:map-name?      rmap-type
|      +--rw bgp:af-nei-weight?          nei-weight
+--rw bgp:af-ipv4-neighbor-address-holder
|   +--rw bgp:af-ipv4-neighbor-address [af-ipv4-neighbor-address]
|   +--rw bgp:af-ipv4-neighbor-address    inet:ip-address
|   +--rw bgp:activate?                    empty
|   +--rw bgp:filter-list
|   |   +--rw bgp:direction-in
|   |   |   +--rw bgp:filter-list-direction-in-acl-name?    ip-filter-name
|   |   |   +--rw bgp:filter-list-name-direction-in?        empty
|   |   +--rw bgp:direction-out
|   |   |   +--rw bgp:filter-list-direction-out-acl-name?    ip-filter-name
|   |   |   +--rw bgp:filter-list-name-direction-out?        empty
|   +--rw bgp:maximum-prefix
|   |   +--rw bgp:max-prefix-limit?    max-prefix-limit
|   |   +--rw bgp:threshold-holder
|   |   |   +--rw bgp:threshold?      max-prefix-threshold
|   |   |   +--rw bgp:teardown?      empty
|   +--rw bgp:default-originate
|   |   +--rw bgp:default-originate-status?    empty
|   |   +--rw bgp:default-originate-route-map? rmap-type
|   +--rw bgp:prefix-list
|   |   +--rw bgp:direction-in
|   |   |   +--rw bgp:prefix-list-direction-in-prefix-name?
nei-prefix-list-filter |   |   |   +--rw bgp:prefix-list-direction-in?          empty
|   |   +--rw bgp:direction-out
|   |   |   +--rw bgp:prefix-list-direction-out-prefix-name?
nei-prefix-list-filter |   |   |   +--rw bgp:prefix-list-direction-out?          empty
|   +--rw bgp:neighbor-route-map
|   |   +--rw bgp:neighbor-route-map-direction-in
|   |   |   +--rw bgp:neighbor-route-map-name-direction-in?
common-def:name-string64 |   |   +--rw bgp:neighbor-route-map-direction-out
|   |   |   +--rw bgp:neighbor-route-map-name-direction-out?
common-def:name-string64 |   |   +--rw bgp:neighbor-route-map-name-direction-out?
|   +--rw bgp:route-reflector-client?    empty
|   +--rw bgp:send-community
|   |   +--rw bgp:send-community-status?  empty
|   |   +--rw bgp:both?                  empty
|   |   +--rw bgp:extended?               empty
|   |   +--rw bgp:standard?               empty
|   +--rw bgp:unsuppress-map
|   |   +--rw bgp:map-name?      rmap-type
|   +--rw bgp:af-nei-weight?          nei-weight
+--rw bgp:af-common-cmds-holder
|   +--rw bgp:maximum-paths
|   |   +--rw bgp:load-sharing-value?    uint32
|   |   +--rw bgp:ebgp?                  ebgp-paths
|   |   +--rw bgp:ibgp?                  ibgp-paths
|   |   +--rw bgp:use-load-sharing?      empty
|   +--rw bgp:multipath

```

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```

| | +--rw bgp:multipath_ebgp?    empty
| | +--rw bgp:multipath_ibgp?    empty
| | +--rw bgp:multi-as?          empty
| +--rw bgp:always-propagate?    empty
| +--rw bgp:default-information-originate?    empty
| +--rw bgp:rib-route-limit?      decimal-number
| +--rw bgp:client-to-client-reflection?    empty
| +--rw bgp:dampening
| | +--rw (ch-dampening-source)?
| | | +--:(ca-dampening-flag)
| | | | +--rw bgp:dampening-flag?    empty
| | | +--:(ca-dampening-specify-values)
| | | | +--rw bgp:values
| | | | | +--rw bgp:half-time?        htime
| | | | | +--rw bgp:reuse-value?      damp-reuse-value
| | | | | +--rw bgp:start-suppress-time?    damp-start-suppress-value
| | | | | +--rw bgp:max-suppress-time?    damp-max-suppress-value
| | | +--:(ca-dampening-route-map)
| | | | +--rw bgp:dampening-route-map?    rmap-type
| +--rw bgp:default-metric?        decimal-number
| +--rw bgp:next-hop-enable-default?    empty
| +--rw bgp:table-map
| | +--rw bgp:table-map-route-map?    rmap-type
| +--rw bgp:update-time?            update-time-type
+--rw bgp:next-hop-recursion?        empty

```

RPCs None

Actions None

brocade-bprate-limit

Description	Provides a data model for configuring the BP rate limit.
Top-level containers	<p>Top-level nodes and their subtree hierarchies follow.</p> <pre>module: brocade-bprate-limit +--rw bp-rate-limit +--rw heavy +--rw bp-rate-limit-slot [bp-rate-limit-slot-num] +--rw bp-rate-limit-slot-num slotnumber</pre>
External augmentations	None
RPCs	None
Actions	None

brocade-bum-storm-control

Description Provides a data model for controlling traffic storms. A traffic storm occurs when packets flood the LAN, creating excessive traffic and degrading network performance. The BUM storm control feature is meant to prevent disruptions on Layer 2 physical ports caused by excessive ingress broadcast, multicast, and unknown unicast traffic. BUM Storm control allows you to limit the amount of BUM traffic admitted to the system

Top-level containers None

External augmentations Nodes that augment other modules and their subtrees follow.

```

module: brocade-interface
module: brocade-interface
  +--rw interface
    +--rw gigabitethernet [name]
      +--rw bum-storm-control:storm-control
        +--rw bum-storm-control:ingress [protocol-type]
          +--rw bum-storm-control:protocol-type enumeration
          +--rw bum-storm-control:rate-format? enumeration
          +--rw bum-storm-control:rate-bps? bps-rate-limit
          +--rw bum-storm-control:rate-percent? percentage-rate-limit
          +--rw bum-storm-control:bum-action? enumeration
    +--rw tengigabitethernet [name]
      +--rw bum-storm-control:storm-control
        +--rw bum-storm-control:ingress [protocol-type]
          +--rw bum-storm-control:protocol-type enumeration
          +--rw bum-storm-control:rate-format? enumeration
          +--rw bum-storm-control:rate-bps? bps-rate-limit
          +--rw bum-storm-control:rate-percent? percentage-rate-limit
          +--rw bum-storm-control:bum-action? enumeration
    +--rw fortygigabitethernet [name]
      +--rw bum-storm-control:storm-control
        +--rw bum-storm-control:ingress [protocol-type]
          +--rw bum-storm-control:protocol-type enumeration
          +--rw bum-storm-control:rate-format? enumeration
          +--rw bum-storm-control:rate-bps? bps-rate-limit
          +--rw bum-storm-control:rate-percent? percentage-rate-limit
          +--rw bum-storm-control:bum-action? enumeration

```

RPCs None

Actions None

brocade-cdp

Description	Provides a data model for enabling or disabling the Cisco Discovery Protocol (CDP).
Top-level containers	None
External augmentations	Nodes that augment other modules and their subtrees follow. <pre>+-rw interface +-rw protocol +-rw cdp:cdp?</pre>
RPCs	None
Actions	None

brocade-cee-map

Description	Provides a data model for managing the CEE map.
Top-level containers	<div>Top-level nodes and their subtree hierarchies follow.</div> <pre>module: brocade-cee-map +-rw cee-map [name] +-rw name common-def:name-string32 +-rw precedence? int32 +-rw priority-group-table [PGID] +-rw priority-table +-rw remap</pre>
External augmentations	None
RPCs	None
Actions	None

brocade-certutil

Description	Provides a data model for certificate management operations. It provides tail-f actions to perform the following functions: <ul style="list-style-type: none"> • Import an LDAP CA certificate • Remove an LDAP CA certificate • Show the LDAP certificate
Top-level containers	Top-level nodes and their subtree hierarchies follow. <pre> module: brocade-certutil +--rw certutil +--rw import </pre>
External augmentations	Nodes that augment other modules and their subtrees follow. <pre> module: brocade-common-def +--rw show +--rw certutil:cert-util +--rw no +--rw certutil:certutil </pre>
RPCs	None
Actions	Proprietary actions defined in this module follow. Import an LDAP CA certificate: <pre> +--rw certutil +-- rw import +--action ldapca +--input +--rw protocol enumeration +--rw user string +--rw password string +--rw host string +--rw directory string +--rw file string +--output Import a syslog server CA certificate: +--rw certutil +-- rw import +--action syslogca +--input +--rw protocol enumeration +--rw user string +--rw password string +--rw host string +--rw directory string +--rw file string +--output </pre>

Remove an LDAP CA certificate:

```
module: brocade-common-def
  +--rw no
  |   +--rw certutil:certutil
  |       +--action certutil:ldapca
  |           +--input
  |           +--output
```

Remove a syslog server CA certificate:

```
module: brocade-common-def
  +--rw no
  |   +--rw certutil:certutil
  |       +--action certutil:syslogca
  |           +--input
  |           +--output
```

Show the LDAP CA certificate:

```
module: brocade-common-def
  +--rw show
  |   +--rw certutil:cert-util
  |       +--action certutil:ldapcacert
  |           +--input
  |           +--output
```

Show the syslog server CA certificate:

```
module: brocade-common-def
  +--rw show
  |   +--rw certutil:cert-util
  |       +--action certutil:syslogcacert
  |           +--input
  |           +--output
```

brocade-chassis

Description Provides a data model for enabling and disabling the chassis.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-chassis
  +--rw hide-virtual-ip-holder
  |   +--rw chassis
  |       +--rw virtual-ip?      common-def:ipv4-address-prefix-type
  |       +--rw virtual-ipv6?    common-def:ipv6-address-prefix
  |       +--rw oper-address
  |       +--ro virtual-oper-Vip-address?
  common-def:ipv4-address-prefix-type
  |       +--ro virtual-oper-VipV6-address*   string
  +--rw chassis
  |   +--ro enable
  |   +--ro disable
  |   +--rw beacon
  |       | +--ro enable
  |       | +--ro disable
  +--rw fan
  |   +--rw airflow-direction
  |       +--ro port-side-intake
  |       +--ro port-side-exhaust
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-rbridge
  +--rw rbridge-id [rbridge-id]
  +--rw chassis:chassis
  |   +--rw chassis:virtual-ip?    common-def:ipv4-address-prefix-type
```

RPCs None

Actions Proprietary actions defined in this module follow.

Enable the chassis:

```
+--rw chassis
  +--action enable
```

Disable the chassis:

```
+--rw chassis
  +--action disable
```

Enable the chassis beacon:

```
+--rw chassis
  +--rw beacon
  +--action enable
```

Disable the chassis beacon:

```
+--rw chassis
  +--rw beacon
  +--action disable
```

Set the airflow direction to port-side-intake:

```
+--rw chassis
  +--rw fan
    +--rw airflow-direction
      +--action port-side-intake
```

Set the airflow direction to port-side-exhaust:

```
+--rw chassis
  +--rw fan
    +--rw airflow-direction
      +--action port-side-exhaust
```

brocade-clock

Description Provides a data model for managing the local clock. It provides mechanisms for setting the local clock time and time zone and for retrieving local clock information.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-clock
  +--rw clock-set-datetime
  |   +--ro clock
  |   |   +--ro input
  |   |   |   +--ro set          ietfyang:date-and-time
  |   |   |   +--ro rbridge-id?  common-def:rbridge-id-all-type
  |   |   +--ro output
  +--rw clock-set-timezone
  |   +--ro clock
  |   |   +--ro input
  |   |   |   +--ro timezone      common-def:timezone
  |   |   |   +--ro rbridge-id?  common-def:rbridge-id-all-type
  |   |   +--ro output
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-common-def
+--rw no
  |   +--rw clock-server:clock
```

RPCs Custom RPCs defined in this module follow.

Retrieve local clock information:

```
+---x show-clock
  +--ro input
  |   +--ro rbridge-id?  common-def:rbridge-id-all-type
  +--ro output
    +--ro clock-time
      +--ro rbridge-id-out?  common-def:rbridge-id-type
      +--ro current-time?   ietfyang:date-and-time
      +--ro timezone?       string
```

Actions Proprietary actions defined in this module follow.

Set the date and time:

```
+---rw clock-set-date-time
  +--action clock
    +--input
      +--rw set          ietfyang:date-and-time
    +--output
```

Set the time zone:

```
+--- clock-set-timezone
  +--action clock
    +--input
      +--rw timezone      common-def:timezone
    +--output
```

brocade-common-def

Description	Provides a data model for commonly used data types derived in the Brocade namespace.
Top-level containers	<p>Top-level nodes and their subtree hierarchies follow.</p> <pre>module: brocade-common-def +-rw show +-rw defaults +-rw clear +-rw no +-rw ip +-rw ipv6 +-rw router</pre>
External augmentations	None
RPCs	None
Actions	None

brocade-diagnostics

Description Provides a data model for managing diagnostic tests. It provides the ability to enable or disable power-on self tests (POSTs) and actions to initiate the tests listed in [Table 1](#).

TABLE 1 Diagnostic actions

Action	Purpose
burninerrclear	Clears the errors that are stored in the nonvolatile storage on the slot during the burn-in process.
clearerror	Clears the diagnostics failure status.
portledtest	Runs various action modes on the port LEDs and validates the functionality.
portloopbacktest	Sends frames between various ASICs on the switch and validates the ASIC functionality.
post	Performs power on self test? REVIEWERS PLEASE CONFIRM!!!!
prbtest	Performs pseudo-random binary-sequence tests.
setcycle	Configures all the parameters required for the system verification test.
setdbg	Changes the debug level.
systemverification	Runs a combination of various hardware diagnostic tests.
turboramtest	Performs a turbo static RAM (SRAM) test of the ASIC chips.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-diagnostics
  +--rw diag
  |   +--ro turboramtest
  |   +--ro portloopbacktest
  |   +--ro portledtest
  |   +--ro systemverification
  |   +--ro prbtest
  |   +--ro clearerror
  |   +--ro burninerrclear
  |   +--ro setcycle
  |   +--ro setdbg
  |   +--rw post
  +--rw fo
```

External augmentations None

RPCs None

Actions Proprietary actions defined in this module follow.

Run the turbo RAM test:

```
+--rw diag
  +--action turboramtest
    +--input
      +--rw slot                               slotidtype
      +--rw passcnt                             uint32
    +--output
      +--ro result                             string
```

Run the port loopback test:

```

+--rw diag
  +--action portloopbacktest
    +--input
      +--ro (int-slot)
        |   +--:(slot)
        |   |   +--ro slot                slotidtype
        |   +--:(ethernet)
        |   |   +--rw ethernet            interfaces:interface-type
        |   +--:(fbrechannel)
        |   |   +--rw fbrechannel          interfaces:interface-type
      +--rw nframes                       uint32
      +--rw lbmode                        uint32
      +--rw spdmode                       enum
    +--output
      +--ro result                        string

```

Run the port LED test:

```

+--rw diag
  +--action portledtest
    +--input
      +--ro (interface)
        |   +--:(slot)
        |   |   +--ro slot                slotidtype
        |   +--:(ethernet)
        |   |   +--rw ethernet            interfaces:interface-type
        |   +--:(fbrechannel)
        |   |   +--rw fbrechannel          interfaces:interface-type
      +--rw action                        emun
      +--rw npass                        uint32
    +--output
      +--ro result                        string

```

Run the system verification test:

```

+--rw diag
  +--action systemverification
    +--input
      +--rw short                        empty
    +--output
      +--ro result                        string

```

Run the pseudorandom binary sequence test:

```

+--rw diag
  +--action prbstest
    +--input
      +--rw slot                        slotidtype
      +--rw pattern                      enum
    +--output
      +--ro result                        string

```

Clear the diagnostic failure status:

```

+--rw diag
  +--action clearerror
    +--output
      +--ro result                        string

```

Clear the errors that are stored in the nonvolatile storage during the burn-in process.

```

+--rw diag

```



```

    +---action burninerrclear
      +--input
        +--rw all empty
      +--output
        +--ro result string

```

Configure all the parameters required for the system verification test:

```

+--rw diag
  +---action setcycle
    +--input
      +--rw pled_passes uint32
      +--rw tbr_passes  uint32
      +--rw num_of_runs  uint32
      +--rw min_lb_mode  uint32
      +--rw plb_nframes  uint32
    +--output
      +--ro result string

```

Set debug:

```

+--rw diag
  +---action setdbg
    +--input
      +--rw level enumeration

```

Run native FOS commands:

```

+--rw fos
  +---action exec
    +--input
      +--ro (op)
      |   +--:(file)
      |   |   +--ro file string
      |   +--:(cmd)
      |   +--rw cmd string
    +--output

```

brocade-distributedlog

Description	Provides a data model for obtaining log-related information for VCS fabrics.		
Top-level containers	None		
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre> module: brocade-common-def +--rw show +--rw distributedlog:log </pre>		
RPCs	None		
Actions	<p>Proprietary actions defined in this module follow.</p> <pre> module: brocade-common-def +--rw show +--rw distributedlog:log +--action distributedlog:audit +--input +--ro (distributedlog:audit-log-input) +--:(distributedlog:all-logs) +--ro distributedlog:all empty +--:(distributedlog:filtered-logs) +--rw distributedlog:rbridge-id common-def:domain-id-type +--rw distributedlog:user string +--rw distributedlog:type enumeration +--output </pre>		

brocade-dot1x

Description Provides a data model for managing the 802.1x authorization feature.

IEEE 802.1X is an IEEE standard for port-based Network Access Control (PNAC). It is a networking protocol that provides an authentication mechanism to devices attempting to attach to a LAN or WLAN. IEEE 802.1X defines the encapsulation of the Extensible Authentication Protocol (EAP) over IEEE 802, which is known as EAP over LAN or EAPoL.

802.1x involves three parties:

- Supplicant—A device that connects to a network
- Authenticator—A network device such as an Ethernet switch
- Authentication server—A host running software that supports RADIUS and EAP

This module defines the parameters used for the PNAC.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-dot1x
  +--rw dot1x
    +--rw enable?    empty
    +--rw test
      +--rw timeout?  dot1x-readiness-test-timeout-interval
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-interface
  +--rw interface
    +--rw gigabitEthernet [name]
      +--rw dot1x:dot1x
        +--rw dot1x:authentication?    empty
        +--rw dot1x:port-control?      enumeration
        +--rw dot1x:protocol-version?  uint32
        +--rw dot1x:quiet-period?     uint32
        +--rw dot1x:reauthMax?        uint32
        +--rw dot1x:reauthentication?  empty
        +--rw dot1x:timeout
          +--rw dot1x:re-authperiod?    dot1x-reauth-timeout-interval
          +--rw dot1x:server-timeout?   dot1x-server-timeout-interval
          +--rw dot1x:supp-timeout?     dot1x-supp-timeout-interval
          +--rw dot1x:tx-period?       dot1x-tx-timeout-interval
    +--rw tengigabitEthernet [name]
      +--rw dot1x:dot1x
        +--rw dot1x:authentication?    empty
        +--rw dot1x:port-control?      enumeration
        +--rw dot1x:protocol-version?  uint32
        +--rw dot1x:quiet-period?     uint32
        +--rw dot1x:reauthMax?        uint32
        +--rw dot1x:reauthentication?  empty
        +--rw dot1x:timeout
          +--rw dot1x:re-authperiod?    dot1x-reauth-timeout-interval
          +--rw dot1x:server-timeout?   dot1x-server-timeout-interval
          +--rw dot1x:supp-timeout?     dot1x-supp-timeout-interval
          +--rw dot1x:tx-period?       dot1x-tx-timeout-interval
    +--rw fortygigabitEthernet [name]
      +--rw dot1x:dot1x
        +--rw dot1x:authentication?    empty
        +--rw dot1x:port-control?      enumeration
```

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```
+-rw dot1x:protocol-version? uint32
+-rw dot1x:quiet-period?      uint32
+-rw dot1x:reauthMax?         uint32
+-rw dot1x:reauthentication?  empty
+-rw dot1x:timeout
  +-rw dot1x:re-authperiod?    dot1x-reauth-timeout-interval
  +-rw dot1x:server-timeout?   dot1x-server-timeout-interval
  +-rw dot1x:supp-timeout?     dot1x-supp-timeout-interval
  +-rw dot1x:tx-period?        dot1x-tx-timeout-interval
```

RPCs None

Actions None

brocade-eld

Description	Provides a data model for configuring global parameters for Edge-Loop-Detection. Interface parameters are modeled in the brocade-interface module.
Top-level containers	None
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre>module: brocade-interface +-rw protocol +-rw eld:edge-loop-detection +-rw eld:pdu-rx-limit? uint32 +-rw eld:hello-interval? uint32 +-rw eld:shutdown-time? uint32</pre>
RPCs	None
Actions	None

brocade-fabric-service

Description Provides a data model for managing VCS fabric-related information. VCS fabric refers to the ability of a group of physical Ethernet switches, inter-connected in an arbitrary way using the regular front-end data ports, to present themselves as one unified and transparent Ethernet switching service to the external network.

The inter-connecting network that contains the individual switches is referred as the *fabric*. The group of physical Ethernet switches in the fabric is referred to as the *cluster*.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-fabric-service
  +--rw fabric
    x--rw route
      +--rw mcast
        +--rw rbridge-id [rbridge-id]
          +--rw rbridge-id      common-def:rbridge-id-type
          +--rw priority?      common-def:mcast-priority-type
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-common-def
  +--rw show
  |   +--rw fabric-service:fabric
  |   +--rw fabric-service:route

module: brocade-rbridge
  +--rw rbridge-id [rbridge-id]
  +--rw rbridge-id      uint32
  +--rw fabric-service:fabric
    +--rw fabric-service:ecmp
      |   +--rw fabric-service:ecmp-load-balance?      enumeration
      |   +--rw fabric-service:load-balance-hash-swap? hashswap-type
    +--rw fabric-service:route
      |   +--rw fabric-service:mcast
      |   |   +--rw fabric-service:priority? common-def:mcast-priority-type
    +--rw fabric-service:port-channel [po-id]
      +--rw fabric-service:po-id      uint32
      +--rw fabric-service:vlag-load-balance? enumeration
```

RPCs Custom RPCs defined in this module follow.

```
+---x show-linkinfo
  |   +--ro input
  |   |   +--ro all? empty
  |   +--ro output
  |   |   +--ro show-link-info [linkinfo-rbridgeid]
  |   |   |   +--ro linkinfo-rbridgeid      common-def:rbridge-id-type
  |   |   |   +--ro linkinfo-domain-reachable? linkinfo-domain-reachable-type
  |   |   |   +--ro linkinfo-wwn?          common-def:wwn-type
  |   |   |   +--ro linkinfo-version?      uint32
  |   |   |   +--ro linkinfo-isl [linkinfo-isl-linknumber]
  |   |   |   |   +--ro linkinfo-isl-linknumber      uint32
  |   |   |   |   +--ro linkinfo-isllink-destdomain?
  |   |   |   |   +--ro linkinfo-isllink-srcport?    uint16
  |   |   |   |   +--ro linkinfo-isllink-srcport-type? interfacetype-type
  |   |   |   |   +--ro linkinfo-isllink-srcport-interface?
  |   |   |   |   +--ro linkinfo-isllink-destport?  uint16
```

```

|         +--ro linkinfo-is1-linkcost?                uint32
|         +--ro linkinfo-is1link-costcount?           uint32
|         +--ro linkinfo-is1link-type?                uint32
|         +--ro linkinfo-trunked?                    linkinfo-trunked-type
+--ro input
|   +--ro all?    empty
+--ro output
|   +--ro show-portindex-interface [portsgroup-rbridgeid]
|   +--ro portsgroup-rbridgeid    common-def:rbridge-id-type
|   +--ro show-portindex [port-index]
|   +--ro port-index              uint32
|   +--ro port-type?              ethernet-port-type
|   +--ro port-interface?        interface:interface-type
+--ro input
|   +--ro all?    empty
+--ro output
|   +--ro show-fibrechannel-interface [portsgroup-rbridgeid]
|   +--ro portsgroup-rbridgeid        common-def:rbridge-id-type
|   +--ro show-fibrechannel-info [port-index]
|   +--ro port-interface?              interface:interface-type
|   +--ro port-index                  uint32
|   +--ro port-type?                  porttype-type
|   +--ro port-wnn?                   common-def:wnn-type
|   +--ro remote-port-wnn?             common-def:wnn-type
|   +--ro remote-node-wnn?             common-def:wnn-type
|   +--ro port-state?                 string
|   +--ro port-status?                string
|   +--ro port-status-message?         string
|   +--ro port-health?                string
|   +--ro port-trunked?                boolean
|   +--ro port-trunk-master?           uint32
|   +--ro port-actual-distance?        uint32
|   +--ro port-desired-credit?         uint32
|   +--ro port-buffer-allocated?       uint32
|   +--ro port-licensed?               boolean
|   +--ro port-address?                fabric-portid-type

```

Actions Proprietary actions defined in this module follow.

Obtain the entire VCS fabric membership information:

```

module: brocade-common-def
+--rw show
|   +--rw fabric-service:fabric
|       +--action all
|           +--input
|           +--output
|               +--ro fabric-showall-cluster [fabric-showall-rbridge-id]
|               +--ro fabric-showall-rbridge-id    common-def:rbridge-id-type
|               +--ro fabric-showall-wnn           common-def:wnn-type
|               +--ro fabric-showall-ipaddress      common-def:inet-address-type
|               +--ro fabric-showall-name           string
|               +--ro fabric-showall-version        string
|               +--ro fabric-showall-swbd-number    int32
|               +--ro fabric-is-principalswitch     boolean
|               +--ro fabric-showall-ipv6address    common-def:inet-address-type

```

Obtain ISL information:

```

module: brocade-common-def

```

```

+--rw show
|   +--rw fabric-service:fabric
|       +--action isl
|           +--input
|               +--ro (fabric-service:rbridge-id-or-all)
|                   +--:(fabric-service:rbridge-id)
|                       |   +--ro fabric-service:rbridge-id
|                           common-def:rbridge-id-type
|                   +--:(fabric-service:all)
|                       +--ro fabric-service:all
|
+--output

```

Obtain detailed information about all ISL ports:

```

module: brocade-common-def
+--rw show
|   +--rw fabric-service:fabric
|       +--action islports
|           +--input
|               +--ro rbridge-id
|
+--output

```

Obtain ISL trunk information:

```

module: brocade-common-def
+--rw show
|   +--rw fabric-service:fabric
|       +--action fabric-service:trunk
|           +--input
|               +--ro (fabric-service:rbridge-id-or-all)
|                   +--:(fabric-service:rbridge-id)
|                       |   +--ro fabric-service:rbridge-id
|                           common-def:rbridge-id-type
|                   +--:(fabric-service:all)
|                       +--ro fabric-service:all
|
+--output
    +--ro fabric-service:show-trunk-list
    +--ro fabric-service:trunk-list-groups
    +--ro fabric-service:trunk-list-group
    +--ro fabric-service:trunk-list-member
    +--ro fabric-service:trunk-list-src-port
    +--ro fabric-service:trunk-list-interface-type
    +--ro fabric-service:trunk-list-src-interface
    +--ro fabric-service:trunk-list-nbr-rbridge-id
    +--ro fabric-service:trunk-list-nbr-port
    +--ro fabric-service:trunk-list-nbr-wnn
    +--ro fabric-service:trunk-list-is-primary

```

Obtain multicast routing information:

```

module: brocade-common-def
+--rw show
|   +--rw fabric-service:fabric
|       +--rw fabric-service:route
|           +--action fabric-service:multicast

```



```

+--input
+--ro (fabric-service:rbridge-id-or-all)
+--:(fabric-service:rbridge-id)
|   +--ro fabric-service:rbridge-id
|   |   common-def:rbridge-id-type
+--:(fabric-service:all)
+--ro fabric-service:all

```

empty

Obtain fabric topology information from the perspective of a VCS fabric node:

```

module: brocade-common-def
+--rw show
|   +--rw fabric-service:fabric
|   +--rw fabric-service:route
|   +--action fabric-service:topology
|   +--input
|   +--ro fabric-service:dest-rbridge-id
|   |   common-def:rbridge-id-type
|   +--ro fabric-service:src-rbridge-id
|   |   common-def:rbridge-id-type

```

Obtain routing information and states along a path that includes multiple switches:

```

module: brocade-common-def
+--rw show
|   +--rw fabric-service:fabric
|   +--action fabric-service:pathinfo

```

Obtains link information for all the links in the fabric:

```

module: brocade-common-def
+--rw show
|   +--rw fabric-service:fabric
|   +--action fabric-service:linkinfo
|   +--input
|   +--output
|   +--ro show-link-info [linkinfo-rbridgeid]
|   |   +--ro linkinfo-rbridgeid          common-def:rbridge-id-type
|   |   +--ro linkinfo-domain-reachable  linkinfo-domain-reachable-type
|   |   +--ro linkinfo-wnn                common-def:wnn-type
|   |   +--ro linkinfo-version            uint32
|   |   +--ro linkinfo-isl [linkinfo-isl-linknumber]
|   |   |   +--ro linkinfo-isl-linknumber    uint32
|   |   |   +--ro linkinfo-isllink-destdomain
|   |   |   |   common-def:rbridge-id-type
|   |   |   +--ro linkinfo-isllink-srcport    uint16
|   |   |   +--ro linkinfo-isllink-srcport-type  interfacetype-type
|   |   |   +--ro linkinfo-isllink-srcport-interface
|   |   |   |   interface:interface-type
|   |   |   +--ro linkinfo-isllink-destport    uint16
|   |   |   +--ro linkinfo-isl-linkcost        uint32
|   |   |   +--ro linkinfo-isllink-costcount   uint32
|   |   |   +--ro linkinfo-isllink-type        uint32
|   |   |   +--ro linkinfo-trunked            linkinfo-trunked-type

```

Obtain the Fabric Shortest Path First (FSPF) link state information for a VCS fabric node:

```

module: brocade-common-def
+--rw show

```

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```
|  +---rw fabric-service:fabric
    +---rw fabric-service:route
        +---action fabric-service:neighbor-state
            +---input
                +---ro (fabric-service:rbridge-id-or-all)
                    +---:(fabric-service:rbridge-id)
                        |  +---ro fabric-service:rbridge-id
                            common-def:rbridge-id-type
                    +---:(fabric-service:all)
                        +---ro fabric-service:all
```

empty

brocade-fc-auth

Description Provides a data model for configuring Fibre Channel authentication through Fibre Channel Security Protocol (FCSP) and Switch Connection Control (SCC) security policy parameters.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-fc-auth
  +--rw fcsp
  |   +--rw auth-secret
  |       +--ro dhchap
  |           +--ro input
  |           +--ro output
  +--rw fcsp-sa
  |   +--rw fcsp
  |       +--rw auth
  |           +--rw proto
  |           +--rw policy
  +--rw secpolicy
  |   +--rw action
  |       +--ro activate
  +--rw secpolicy-sa
  |   +--rw secpolicy
  |       +--rw defined-policy
  |       +--rw active-policy
  |       +--rw policies [policy]
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-common-def
  +--rw show
  |   +--rw brcd-fc-auth:fcsp
  |       +--rw brcd-fc-auth:authsecret
  +--rw no
  |   +--rw brcd-fc-auth:fcsp
  |       +--rw brcd-fc-auth:auth-secret
```

RPCs None

Actions Proprietary actions defined in this module follow.

Configure the authorization secret for DH-CHAP:

```
+--rw auth-secret
  +--action dhchap
    +--input
      +--rw node string
      +--rw peer-secret string
      +--rw local-secret string
    +--output
      +--ro result string
```

Return the device WWN for which a shared secret is configured:

```
module: brocade-common-def
  +--rw show
  |   +--rw fc-auth:fcsp
  |       +--rw fc-auth:authsecret
  |       +--action fc-auth:dhchap
```

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```
    +--input
  +--output
    +--ro fc-auth:auth-show-secret
    +--ro fc-auth:nodeid string
```

Delete the authorization secret for DH-CHAP:

```
module: brocade-common-def
  +--rw no
  |   +--rw fc-auth:fcsp
  |       +--rw fc-auth:auth-secret
  |       +--action dhchap
  |       +--input
  |           +--ro (fc-auth:op)
  |               +--:(fc-auth:node)
  |                   |   +--ro fc-auth:node common-def:wwn-type
  |                   +--:(fc-auth:all)
  |                       +--ro fc-auth:all empty
  +--output
    +--ro fc-auth:result string
```

Activate all the defined FC authorization policies:

```
+--rw action
  +--action activate
```

brocade-fcoe

Description Provides a data model for managing the Fibre Channel over Ethernet (FCoE) feature. It provides a mechanism to configure FCoE maps and the FCoE interface.

FCoE is an encapsulation of Fibre Channel frames over Ethernet networks which allows Fibre Channel to use 10 Gigabit Ethernet networks (or higher speeds) while preserving the Fibre Channel protocol.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-fcoe
  +--rw fcoe
    +--rw fcoe-fabric-map [fcoe-fabric-map-name]
      | +--rw fcoe-fabric-map-name          fcoe-fabric-map-name-type
      | +--rw fcoe-fabric-map-vlan?         fcoe-vlan-type
      | +--rw fcoe-fabric-map-priority?     fcoe-priority-type
      | +--rw fcoe-fabric-map-virtual-fabric? fcoe-vfid-type
      | +--rw fcoe-fabric-map-fcmap?       fcoe-fcmap-type
      | +--rw fcoe-fabric-map-max-enodes?   fcoe-max-enodes-type
      | +--rw fcoe-fip-advertisement
      | | +--rw fcoe-fip-advertisement-interval? int32
      | +--rw fcoe-fip-keep-alive
      | | +--rw fcoe-fip-keep-alive-timeout? empty
    +--rw fcoe-map [fcoe-map-name]
      +--rw fcoe-map-name          fcoe-map-name-type
      +--rw fcoe-map-fabric-map [fcoe-map-fabric-map-name]
      | +--rw fcoe-map-fabric-map-name fcoe-fabric-map-name-type
      +--rw fcoe-map-cee-map
      | +--rw fcoe-map-cee-map-leaf? fcoe-cee-map-name-type
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-interface
  +--rw interface
    +--rw tengigabitethernet [name]
      +--rw fcoe:fabric
        +--rw fcoe:fabric-isl
          | +--rw fcoe:fabric-isl-enable? empty
        +--rw fcoe:fabric-trunk
          +--rw fcoe:fabric-trunk-enable? empty
      +--rw fcoe:fcoeport
        +--rw fcoe:fcoeport-map? fcoe-map-name-type
    +--rw fortygigabitethernet [name]
      +--rw fcoe:fabric
        +--rw fcoe:fabric-isl
          | +--rw fcoe:fabric-isl-enable? empty
        +--rw fcoe:fabric-trunk
          +--rw fcoe:fabric-trunk-enable? empty
      +--rw port-channel [name]
        +--rw fcoe:fcoeport
          +--rw fcoe:fcoeport-map? fcoe-map-name-type
    +--rw fcoe:fcoe [fcoe-interface-name]
      +--rw fcoe:fcoe-interface-name          interface-fcoe-type
      +--rw fcoe:fcoe-interface-shutdown?     empty
      +--rw fcoe:fcoe-interface-bind
        +--rw fcoe:fcoe-interface-bind-type? enumeration
        +--rw fcoe:fcoe-interface-bind-name? string
```

2 brocade-fcoe

RPCs None

Actions None

brocade-fcoe-ext

Description	Provides extensions to the brocade-fcoe module, including custom RPCs for returning operational information about FCoE ports and logins.
Top-level containers	None
External augmentations	None
RPCs	Custom RPCs defined in this module follow.

```

+---x fcoe-get-interface
|   +---ro input
|   |   +---ro fcoe-intf-name?          fcoe:interface-fcoe-type
|   |   +---ro fcoe-intf-rbridge-id?    common-def:rbridge-id-type
|   |   +---ro fcoe-intf-include-stats? boolean
|   +---ro output
|       +---ro fcoe-intf-list [fcoe-intf-fcoe-port-id]
|       |   +---ro fcoe-intf-fcoe-port-id    fcoe:interface-fcoe-type
|       |   +---ro fcoe-intf-port-type?      fcoe-port-mode-type
|       |   +---ro fcoe-intf-config-port-type? fcoe-port-mode-type
|       |   +---ro fcoe-intf-port-state?      fcoe-port-state-type
|       |   +---ro fcoe-intf-fabric-map-name? fcoe-map-name
|       |   +---ro fcoe-intf-eth-port-id?     interface:interface-type
|       |   +---ro interface-type?           enumeration
|       |   +---ro interface-name?           union
|       |   +---ro fcoe-intf-admin-status?    boolean
|       |   +---ro fcoe-intf-peer-fcf-mac?    yang:mac-address
|       |   +---ro fcoe-intf-device-count?    yang:zero-based-counter32
|       |   +---ro fcoe-intf-ifindex?         uint32
|       |   +---ro fcoe-intf-wwn?            common-def:wwn-type
|       |   +---ro fcoe-intf-enode-bind-type? fcoe-binding-type
|       |   +---ro fcoe-intf-port-bind-type?  fcoe-binding-type
|       |   +---ro fcoe-intf-enode-mac-address? yang:mac-address
|       |   +---ro fcoe-intf-rx-vlan-disc-req? yang:zero-based-counter32
|       |   +---ro fcoe-intf-rx-disc-solicitations? yang:zero-based-counter32
|       |   +---ro fcoe-intf-rx-flogi?        yang:zero-based-counter32
|       |   +---ro fcoe-intf-rx-fdiscs?       yang:zero-based-counter32
|       |   +---ro fcoe-intf-rx-logo?         yang:zero-based-counter32
|       |   +---ro fcoe-intf-rx-errors?       yang:zero-based-counter32
|       |   +---ro fcoe-intf-tx-vlan-disc-resp? yang:zero-based-counter32
|       |   +---ro fcoe-intf-tx-disc-sol-adv?  yang:zero-based-counter32
|       |   +---ro fcoe-intf-tx-disc-unsol-adv? yang:zero-based-counter32
|       |   +---ro fcoe-intf-rx-enode-ka?      yang:zero-based-counter32
|       |   +---ro fcoe-intf-rx-vnport-ka?    yang:zero-based-counter32
|       |   +---ro fcoe-intf-tx-accepts?      yang:zero-based-counter32
|       |   +---ro fcoe-intf-tx-ls-rjt?       yang:zero-based-counter32
|       |   +---ro fcoe-intf-time-since-last-change?
|       |   +---ro fcoe-intf-last-counters-cleared?
|       |   +---ro fcoe-intf-tx-cvls?          yang:zero-based-counter32
|       +---ro fcoe-intf-total-interfaces?    yang:zero-based-counter32
+---x fcoe-get-login
|   +---ro input
|   |   +---ro fcoe-login-interface?    fcoe:interface-fcoe-type
|   |   +---ro fcoe-login-vfid?         fcoe:fcoe-vfid-type
|   |   +---ro fcoe-login-vlan?         fcoe:fcoe-vlan-type

```

2 brocade-fcoe-ext

```
|  +--ro fcoe-login-rbridge-id?   common-def:rbridge-id-type
+--ro output
+--ro fcoe-login-list [fcoe-login-session-mac]
|  +--ro fcoe-login-session-mac      yang:mac-address
|  +--ro fcoe-login-fcoe-interface-name?  fcoe:interface-fcoe-type
|  +--ro fcoe-login-interface-name?      union
|  +--ro interface-type?                 enumeration
|  +--ro interface-name?                 union
|  +--ro fcoe-login-device-wwn?          common-def:wwn-type
|  +--ro fcoe-login-device-mac?          yang:mac-address
|  +--ro fcoe-login-direct-attached?     boolean
|  +--ro fcoe-login-connected-peer-type?  enumeration
+--ro fcoe-login-total-logins?   yang:zero-based-counter32
```

Actions None

brocade-firmware

Description Provides a data model for managing the download of firmware and for reporting firmware download status. It includes the custom actions listed in [Table 2](#).

TABLE 2 Custom actions for firmware version management

Action	Purpose
<ftp>	Download firmware with FTP.
<scp>	Download firmware with SCP.
<usb>	Download firmware from a USB device.
<interactive>	Download firmware interactively.
<commit>	Commits a firmware upgrade after evaluation.
<restore>	Restores a firmware version.
<sync>	Synchronizes the firmware with its peer.
<fastboot>	Reboots the control processor (CP), bypassing the power-on self-tests (POSTs).

Top-level containers

Top-level nodes and their subtree hierarchies follow.

```
module: brocade-firmware
  +--rw firmware
  |   +--rw download
  |   |   +--ro ftp
  |   |   +--ro scp
  |   |   +--ro sftp
  |   |   +--ro usb
  |   |   +--ro interactive
  |   |   +--rw logical-chassis
  |   |   |   +--ro ftp
  |   |   |   +--ro scp
  |   |   |   +--ro sftp
  |   |   +--ro sanity-check
  |   +--ro commit
  |   +--ro restore
  |   +--ro sync
  |   +--ro activate
  |   +--ro recover
  |   +--rw auto-sync
  |   +--rw autoupgrade
  |   +--rw autoupgrade-params
  +--rw reboot
  +--ro fastboot
```

External augmentations None

RPCs Custom RPCs defined in this module follow.

```
+---x fwdl-status
|   +--ro input
|   |   +--ro fwdl-tid?   int32
|   +--ro output
|       +--ro number-of-entries?  uint32
```

```

    +--ro fwdl-state?          enumeration
    +--ro fwdl-entries
      +--ro index?             uint32
      +--ro message-id?        int32
      +--ro date-and-time-info? string
      +--ro message?           string
      +--ro blade-slot?        int32
      +--ro blade-swbd?        int32
      +--ro blade-name?        string
      +--ro blade-state?       enumeration
      +--ro blade-app?         string
+---x activate-status
  +--ro input
  | +--ro rbridge-id?    rbridge-ids-all-type
  +--ro output
    +--ro overall-status?    int32
    +--ro overall-error-msg? string
    +--ro activate-entries
      +--ro rbridge-id?    common-def:rbridge-id-type
      +--ro status?        int32
+---x logical-chassis-fwdl-sanity
  +--ro input
  | +--ro user            string
  | +--ro password?       string
  | +--ro host            string
  | +--ro directory       string
  | +--ro file?           string
  | +--ro rbridge-id      rbridge-ids-all-type
  | +--ro auto-activate?  empty
  | +--ro protocol        enumeration
  +--ro output
    +--ro fwdl-cmd-status?   int32
    +--ro fwdl-cmd-msg?     string
    +--ro cluster-output
      +--ro rbridge-id?     uint32
      +--ro fwdl-status?    int32
      +--ro fwdl-msg?       string
+---x logical-chassis-fwdl-status
  +--ro input
  | +--ro rbridge-id?    rbridge-ids-all-type
  +--ro output
    +--ro overall-status?    int32
    +--ro cluster-fwdl-entries
      +--ro rbridge-id?     uint32
      +--ro fwdl-state?     enumeration
      +--ro fwdl-entries
        +--ro index?        uint32
        +--ro message-id?    int32
        +--ro date-and-time-info? string
        +--ro message?       string
        +--ro blade-slot?    int32
        +--ro blade-swbd?    int32
        +--ro blade-name?    string
        +--ro blade-state?   enumeration
        +--ro blade-app?     string

```

Actions Proprietary actions defined in this module follow.

Download firmware from an FTP server:

```

+--rw firmware
  +--rw download
    +--action ftp
      +--input
        +--rw user          string
        +--rw password      string
        +--rw host          string
        +--rw directory     string
        +--rw file          string
        +--rw manual        empty
        +--rw noreboot      empty
        +--rw nocommit      empty
      +--output
        +--ro fmdl-tid      int32
        +--ro fmdl-status   int32
        +--ro fmdl-msg      string

```

Download firmware from an SFTP server:

```

+--rw firmware
  +--rw download
    +--action sftp
      +--input
        +--rw user          string
        +--rw password      string
        +--rw host          string
        +--rw directory     string
        +--rw file          string
        +--rw manual        empty
        +-- rw manual
        +-- rw noreboot
        +-- rw nocommit
      +--rw noactivate
      +--output
        +--ro fmdl-tid      int32
        +--ro fmdl-status   int32
        +--ro fmdl-msg      string

```

Download firmware from an SCP server:

```

+--rw firmware
  +--rw download
    +--action scp
      +--input
        +--rw user          string
        +--rw password      string
        +--rw host          string
        +--rw directory     string
        +--rw file          string
        +--rw manual        empty
        +--rw noreboot      empty
        +--rw nocommit      empty
      +--output
        +--ro fmdl-tid      int32
        +--ro fmdl-status   int32
        +--ro fmdl-msg      string

```

Download firmware from a USB device:

```

+--rw firmware
  +--rw download
    +--action usb
      +--input
        +--rw directory      string
        +--rw manual         empty
        +--rw noreboot        empty
        +--rw nocommit        empty
      +--output
        +--ro fwdl-tid        int32
        +--ro fwdl-status     int32
        +--ro fwdl-msg        string

```

Download firmware interactively:

```

+--rw firmware
  +--rw download
    +--action interactive

```

Commit a firmware version:

```

+--rw firmware
  +--rw download
    +--action commit
      +--input
      +--output
        +--ro result          string

```

Firmware download sanity check:

```

+--rw firmware
  +--rw download
    +--action sanity-check
      +--input
        +--ro user            string
        +--ro password         string
        +--ro host             string
        +--ro directory        string
        +--ro file             string
        +--ro rbridge-id       rbridge-ids-all-type
        +--ro auto-activate    empty
        +--ro protocol         string
      +--output
        +--ro fwdl-cmd-status  int32
        +--ro fwdl-cmd-msg     string

```

Restore a firmware version:

```

+--rw firmware
  +--rw download
    +--action restore
      +--output
        +--ro result          string

```

Synchronize firmware to peer processor:

```

+--rw firmware
  +--rw download

```

```
    +---action sync
      +--output
        +--ro result          string
```

Reload the system without running POSTs:

```
+---rw reboot
  +--action fastboot
    +--output
      +--ro result          string
```

brocade-firmware-ext

Description	Provides a data model with extensions to the brocade-firmware model for reporting firmware information.
Top-level containers	None
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre> module: brocade-common-def +--rw show +--rw firmware-extensions:firmware </pre>
RPCs	<p>Custom RPCs defined in this module follow.</p> <p>Return firmware version information:</p> <pre> +---x show-firmware-version +--ro input +--ro switchid? ras-extensions:switchid-type +--ro output +--ro show-firmware-version +--ro switchid? ras-extensions:switchid-type +--ro os-name? string +--ro os-version? string +--ro copy-right-info? string +--ro build-time? string +--ro firmware-full-version? string +--ro control-processor-vendor? string +--ro control-processor-chipset? string +--ro control-processor-memory? string +--ro node-info +--ro slot-no? uint32 +--ro node-instance-no? uint32 +--ro node-type? node-type-enum +--ro is-active-cp? boolean +--ro firmware-version-info +--ro application-name? string +--ro primary-version? string +--ro secondary-version? string </pre>
Actions	<p>Proprietary actions defined in this module follow.</p> <p>Return the firmware download status:</p> <pre> module: brocade-common-def +--rw show +--rw firmware-extensions:firmware +--action firmware-extensions:firmwaredownloadstatus +--input +--ro firmware-extensions:rbridge-id ras-extensions:switchid-type +--ro firmware-extensions:brief empty +--output +--ro firmware-extensions:result string </pre> <p>Return the firmware download history:</p> <pre> module: brocade-common-def </pre>

```

+--rw show
|   +--rw firmware-extensions:firmware
|       +--action firmware-extensions:firmwaredownloadhistory
|           +--input
|               +--ro firmware-extensions:rbridge-id          string
|           +--output
|               +--ro firmware-extensions:result              string

```

Return the firmware version string:

```

module: brocade-common-def
+--rw show
|   +--rw firmware-extensions:firmware
|       +--action firmware-extensions:version
|           +--input
|               +--ro firmware-extensions:rbridge-id
|                   ras-extensions:switchid-type
|               +--ro firmware-extensions:brief                empty
|               +--ro firmware-extensions:all-partitions        empty
|           +--output
|               +--ro firmware-extensions:result              string

```

Return firmware features:

```

module: brocade-common-def
+--rw show
|   +--rw firmware-extensions:firmware
|       +--action features
|           +--input
|           +--output
|               +--ro firmware-extensions:result              string

```

brocade-ha

Description	<p>Provides a data model for:</p> <ul style="list-style-type: none"> • Enabling and disabling high availability • Displaying high availability status information, • Rebooting the chassis • Performing failover • Displaying the high availability state
Top-level containers	<p>Top-level nodes and their subtree hierarchies follow.</p> <pre> module: brocade-ha +--rw ha +--rw system +--ro reload </pre>
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre> module: brocade-common-def +--rw show +--rw ha:ha module: brocade-common-def +--rw show +--rw redundancy:redundancy </pre>
RPCs	None
Actions	<p>Proprietary actions defined in this module follow.</p> <pre> module: brocade-common-def +--rw show +--rw ha:ha +--action ha +--input +--rw ha +--action enable +--input +--rw ha +--action disable +--input +--rw ha +--action dump +--input +--rw ha +--action chassisreboot +--input +--rw ha +--action failover +--input </pre>

brocade-igmp

Description	Provides a data model for configuring the Internet Group Management Protocol (IGMP). IGMP alleviates excessive traffic caused by Layer 2 forwarding of received multicast packets.
Top-level containers	None
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre> module: brocade-interface +--rw interface-vlan +--rw interface +--rw vlan [name] +--rw ip +--rw igmp-snooping:igmp +--rw igmp-snooping:last-member-query-interval? lmq-t-type +--rw igmp-snooping:query-interval? qi-type +--rw igmp-snooping:query-max-response-time? qmrt-type +--rw igmp-snooping:snooping +--rw igmp-snooping:enable? empty +--rw igmp-snooping:fast-leave? empty +--rw igmp-snooping:mrouter-timeout? mrti-type +--rw igmp-snooping:querier +--rw igmp-snooping:qenable? empty +--rw igmp-snooping:mrouter +--rw igmp-snooping:interface [if-type value] +--rw igmp-snooping:if-type enumeration +--rw igmp-snooping:value string-type +--rw igmp-snooping:static-group [mcast-address interface if-type value] +--rw igmp-snooping:mcast-address inet:ipv4-address +--rw igmp-snooping:interface enumeration +--rw igmp-snooping:if-type enumeration +--rw igmp-snooping:value string-type </pre>
RPCs	None
Actions	None

brocade-igmp-snooping

Description Provides a data model for configuring the Internet Group Management Protocol (IGMP) snooping. IGMP snooping alleviates excessive traffic caused by Layer 2 forwarding of received multicast packets.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-igmp-snooping
  +--rw igmp-snooping
    +--rw ip
      +--rw igmp
        +--rw snooping
          +--rw enable? empty
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-common-def
  +--rw ip
    +--rw igmp-snooping:igmp
      +--rw igmp-snooping:snooping
        +--rw igmp-snooping:enable? empty

module: brocade-interface
  +--rw interface-vlan
    +--rw interface
      +--rw vlan [name]
        +--rw name          vlan-type
        +--ro ifindex?      uint64
        +--rw description?  string
        +--rw shutdown?     empty
        +--rw ip
          +--rw igmp-snooping:igmp
            +--rw igmp-snooping:last-member-query-interval?  lmqi-type
            +--rw igmp-snooping:query-interval?              qi-type
            +--rw igmp-snooping:query-max-response-time?     qmrt-type
            +--rw igmp-snooping:snooping
              | +--rw igmp-snooping:enable? empty
              | +--rw igmp-snooping:fast-leave? empty
              | +--rw igmp-snooping:mrouter-timeout? mrti-type
              | +--rw igmp-snooping:querier
              | | +--rw igmp-snooping:qenable? empty
              | +--rw igmp-snooping:mrouter
              | | +--rw igmp-snooping:interface [if-type value]
              | | +--rw igmp-snooping:if-type enumeration
              | | +--rw igmp-snooping:value string-type
            +--rw igmp-snooping:static-group
              [mcast-address interface if-type value]
            +--rw igmp-snooping:mcast-address inet:ipv4-address
            +--rw igmp-snooping:interface enumeration
            +--rw igmp-snooping:if-type enumeration
            +--rw igmp-snooping:value string-type
```

RPCs None

Actions None

brocade-interface

Description Provides the data model for managing Ethernet network interfaces and their sublayers.

[Table 3](#) lists the Ethernet interfaces and other entities modeled by high-level nodes in this management module.

TABLE 3 Entities managed through brocade-interface module

High-level node name	Description
interface/fc-port	Models Fibre Channel interfaces
interface/fortygigabitethernet	Models 40 GbE physical Ethernet interfaces
interface/gigabitethernet	Models 1 GbE physical Ethernet interfaces
interface/management	Models the management port or management interfaces
interface/port-channel	Models port-channel or LAG interfaces
interface/tengigabitethernet	Models 10 GbE physical Ethernet interfaces
interface-vlan	Models Layer 2 VLAN interfaces
protocol	Models protocol configuration and status
reserved-vlan	Models the reserved VLAN configuration

This module provides the mechanism to support the following actions:

- Discover and characterize the interface sublayers.
- Configure various attributes of these interfaces.
- Structure the interfaces such that various Layer 2 or Layer 3 access and security policies, network discovery policies, QoS policies, and link aggregation policies can be applied using other modules supported by the managed entity.

Top-level containers

Top-level nodes and their subtree hierarchies follow.

interface/fc-port:

```

module: brocade-interface
  +--rw interface
    +--rw fc-port [name]
      +--rw name                          interface-type
      +--rw fc-speed-cfg?                  fc-speed-cfg-type
      +--rw fill-word?                     fc-fillword-cfg-type
      +--rw long-distance?                 fc-long-distance-cfg-type
      +--rw vc-link-init?                  fc-vc-link-init-cfg-type
      +--rw desire-distance?               desire-distance-type
      +--rw isl_r_rdy-mode?                empty
      +--rw trunk-enable?                  empty
      +--rw shutdown?                      empty

```

interface/fortygigabitethernet:

```

module: brocade-interface
  +--rw interface
    +--rw fortygigabitethernet [name]
      +--rw name                          interface-type
      +--rw cee?                          common-def:name-string32
      +--ro ifindex?                      uint64
      +--rw description?                  string

```

```

+--rw shutdown?          empty
+--rw channel-group
| +--rw port-int?    portchannel-type
| +--rw mode?        po-mode
| +--rw type?        po-type
+--rw mtu?            mtu-type
+--rw switchport
| +--rw basic?        empty
| +--rw mode
| | +--rw vlan-mode?  l2-mode-type
| +--rw access
| | +--rw accessvlan? vlan-type
| +--rw trunk
| | +--rw allowed
| | | +--rw vlan
| | | | +--rw all?      empty
| | | | +--rw none?     empty
| | | | +--rw add?      ui32-vlan-range
| | | | +--rw except?   ui32-vlan-range
| | | | +--rw remove?   ui32-vlan-range
| | | x--rw vlanoper
| | | +--rw vlan
| | | | +--rw add?      ui32-vlan-range
| | | | +--rw remove?   ui32-vlan-range
| | +--rw tag?
| | | +--rw native-vlan? empty
| +--rw nativevlanid? uint32
+--rw ip
+--rw vrf
| +--forwarding          common-def:vrf-name
+--rw edge-loop-detection
| +--rw eldprio?         uint32
| +--rw eldvlan?         ui32-eldvlan-range

```

interface/gigabitethernet:

```

module: brocade-interface
+--rw interface
+--rw gigabitethernet [name]
+--rw name                interface-type
+--ro ifindex?            uint64
+--rw description?        string
+--rw shutdown?           empty
+--rw channel-group
| +--rw port-int?    portchannel-type
| +--rw mode?        po-mode
| +--rw type?        po-type
+--rw mtu?            mtu-type
+--rw switchport
| +--rw basic?        empty
| +--rw mode
| | +--rw vlan-mode?  l2-mode-type
| +--rw access
| | +--rw accessvlan? vlan-type
| +--rw trunk
| | +--rw allowed
| | | +--rw vlan
| | | | +--rw all?      empty
| | | | +--rw none?     empty
| | | | +--rw add?      ui32-vlan-range

```

```

|         |         | +--rw except?    ui32-vlan-range
|         |         | +--rw remove?   ui32-vlan-range
|         |         | x--rw vlanoper
|         |         | +--rw vlan
|         |         | +--rw add?      ui32-vlan-range
|         |         | +--rw remove?  ui32-vlan-range
|         | +--rw tag?
|         | | +--rw native-vlan?    empty
|         | +--rw nativevlanid?    uint32
+--rw ip
+--rw vrf
| +--forwarding          common-def:vrf-name
+--rw edge-loop-detection
| +--rw eldprio?         uint32
| +--rw eldvlan?        ui32-eldvlan-range

```

interface/management:

```

module: brocade-interface
+--rw interface
+--rw management [name]
+--rw name          man-interface-type
+--rw ip
| +--rw address
| | +--rw dhcp?      empty
| | +--rw ip-address? common-def:ipv4-address-prefix-type
+--rw gateway
| +--rw gateway-address? inet:ipv4-address
+--rw oper-address
| +--ro oper-ip-address? common-def:ipv4-address-prefix-type
+--rw oper-gateway-con
| +--ro oper-gateway?   inet:ipv4-address
+--rw ipv6
| +--rw ipv6-address-cont
| | +--rw ipv6-global-address? common-def:ipv6-address-prefix
| | +--rw autoconfig?         empty
| | +--rw dhcpv6?             empty
| +--ro ipv6-address*         string
| +--ro ipv6-gateways*        string
+--rw speed?                  enumeration
+--rw line-speed
| +--ro actual?               string
| +--ro configured?          string

```

interface/port-channel:

```

module: brocade-interface
+--rw interface
+--rw port-channel [name]
+--rw name          portchannel-type
+--rw cee?          common-def:name-string32
+--rw vlag
| +--rw ignore-split? empty
+--rw po-speed?     enumeration
+--ro ifindex?      uint64
+--rw description?  string
+--rw shutdown?     empty
+--rw minimum-links? uint32
+--rw mtu?          mtu-type
+--rw switchport

```

```

| +--rw basic?      empty
| +--rw mode
| | +--rw vlan-mode?  l2-mode-type
| +--rw access
| | +--rw accessvlan?  vlan-type
| +--rw trunk
| | +--rw allowed
| | | +--rw vlan
| | | | +--rw all?      empty
| | | | +--rw none?     empty
| | | | +--rw add?      ui32-vlan-range
| | | | +--rw except?   ui32-vlan-range
| | | | +--rw remove?   ui32-vlan-range
| | | x--rw vlanoper
| | | +--rw vlan
| | | | +--rw add?      ui32-vlan-range
| | | | +--rw remove?   ui32-vlan-range
| | +--rw tag?
| | | +--rw native-vlan?  empty
| +--rw nativevlanid?  uint32
+--rw ip
+--rw vrf
| +--forwarding      common-def:vrf-name
+--rw edge-loop-detection
| +--rw eldprio?     uint32
| +--rw eldvlan?     ui32-vlan-range
+--rw load-balance?  enumeration

```

interface/tengigabitethernet:

```

module: brocade-interface
+--rw interface
+--rw tengigabitethernet [name]
+--rw long-distance-isl?  enumeration
+--rw name                interface-type
+--rw cee?                common-def:name-string32
+--rw speed?              enumeration
+--ro ifindex?            uint64
+--rw description?        string
+--rw shutdown?           empty
+--rw channel-group
| +--rw port-int?         portchannel-type
| +--rw mode?             po-mode
| +--rw type?             po-type
+--rw mtu?                mtu-type
+--rw switchport
| +--rw basic?           empty
| +--rw mode
| | +--rw vlan-mode?     l2-mode-type
| +--rw access
| | +--rw accessvlan?    vlan-type
| +--rw trunk
| | +--rw allowed
| | | +--rw vlan
| | | | +--rw all?      empty
| | | | +--rw none?     empty
| | | | +--rw add?      ui32-vlan-range
| | | | +--rw except?   ui32-vlan-range
| | | | +--rw remove?   ui32-vlan-range
| | x--rw vlanoper

```

```

|         |         +--rw vlan
|         |         +--rw add?      ui32-vlan-range
|         |         +--rw remove?   ui32-vlan-range
|         +--rw tag?
|         |   +--rw native-vlan?     empty
|         +--rw nativevlanid?       uint32
+--rw ip
+--rw vrf
|   +--forwarding          common-def:vrf-name
+--rw vepa
|   +--rw vepa-enable?     empty
+--rw edge-loop-detection
|   +--rw eldprio?         uint32
|   +--rw eldvlan?         ui32-eldvlan-range

```

interface-vlan:

```

module: brocade-interface
+--rw interface-vlan
+--rw interface
+--rw vlan [name]
|   +--rw name          vlan-type
|   +--ro ifindex?      uint64
|   +--rw description?  string
|   +--rw shutdown?     empty
|   +--rw ip
+--rw ve [name]
|   +--rw name          ve-type
|   +--rw ip

```

protocol:

```

module: brocade-interface
+--rw protocol

```

reserved-vlan:

```

module: brocade-interface
+--rw reserved-vlan
|   +--rw reserved-vlan-start?   uint32
|   +--rw reserved-vlan-end?     uint32

```

External augmentations

Nodes that augment other modules and their subtrees follow.

```

module: brocade-rbridge
+--rw rbridge-id [rbridge-id]
+--rw rbridge-id          uint32
+--rw brocade-interface:protocol
+--rw brocade-interface:interface
|   +--rw brocade-interface:ve [name]
|   +--rw brocade-interface:name  vlan-type

```

RPCs None

Actions None

brocade-interface-ext

Description	Provides a data model extension to the brocade-interface module for defining RPCs to retrieve interface-related operational data in the managed device.
Top-level containers	None
External augmentations	None
RPCs	Custom RPCs defined in this module follow.

```

+---x get-vlan-brief
|   +--ro input
|   |   +--ro (request-type)?
|   |   |   +--:(get-request)
|   |   |   |   +--ro vlan-id?          interface:vlan-type
|   |   |   +--:(get-next-request)
|   |   |   |   +--ro last-rcvd-vlan-id?  interface:vlan-type
|   |   +--ro output
|   |   |   +--ro vlan [vlan-id]
|   |   |   |   +--ro vlan-id          interface:vlan-type
|   |   |   |   +--ro vlan-type?       enumeration
|   |   |   |   +--ro vlan-name?       string
|   |   |   |   +--ro vlan-state?      enumeration
|   |   |   |   +--ro interface [interface-type interface-name]
|   |   |   |   |   +--ro interface-type  enumeration
|   |   |   |   |   +--ro interface-name  union
|   |   |   |   |   +--ro tag?           enumeration
|   |   |   +--ro last-vlan-id?        interface:vlan-type
|   |   +--ro has-more?                boolean
+---x get-interface-switchport
|   +--ro output
|   |   +--ro switchport [interface-type interface-name]
|   |   |   +--ro interface-type  enumeration
|   |   |   +--ro interface-name  union
|   |   |   +--ro mode?           interface:switchport-mode-type
|   |   |   +--ro fcoe-port-enabled?  boolean
|   |   |   +--ro ingress-filter-enabled?  boolean
|   |   |   +--ro acceptable-frame-type?  enumeration
|   |   |   +--ro default-vlan?          interface:vlan-type
|   |   |   +--ro active-vlans
|   |   |   |   +--ro vlanid*  interface:vlan-type
|   |   |   +--ro inactive-vlans
|   |   |   |   +--ro vlanid*  interface:vlan-type
+---x get-ip-interface
|   +--ro input
|   |   +--ro (request-type)?
|   |   |   +--:(get-request)
|   |   |   |   +--ro interface-type?  enumeration
|   |   |   |   +--ro interface-name?  union
|   |   |   |   +--ro rbridge-id?      uint32
|   |   +--ro output
|   |   |   +--ro interface [interface-type interface-name]
|   |   |   |   +--ro interface-type  enumeration
|   |   |   |   +--ro interface-name  union
|   |   |   +--ro if-name?           string

```



```

| | +--ro ip-address [ipv4]
| | | +--ro ipv4          string
| | | +--ro ipv4-type?    enumeration
| | | +--ro broadcast?    string
| | | +--ro ip-mtu?       interface:mtu-type
| | +--ro if-state?       enumeration
| | +--ro line-protocol-state? enumeration
| | +--ro proxy-arp?      string
| | +--ro vrf?            string
| +--ro has-more?        boolean
+---x get-interface-detail
| +--ro input
| | +--ro (request-type)?
| | | +--:(get-request)
| | | | +--ro interface-type?    enumeration
| | | | +--ro interface-name?    union
| | | +--:(get-next-request)
| | | | +--ro last-rcvd-interface
| | | | | +--ro interface-type?    enumeration
| | | | | +--ro interface-name?    union
| +--ro output
| | +--ro interface [interface-type interface-name]
| | | +--ro interface-type    enumeration
| | | +--ro interface-name    union
| | | +--ro ifindex?          uint64
| | | +--ro mtu?              interface:mtu-type
| | | +--ro ip-mtu?           interface:mtu-type
| | | +--ro if-name?          string
| | | +--ro if-state?         enumeration
| | | +--ro line-protocol-state? enumeration
| | | +--ro line-protocol-state-info? string
| | | +--ro line-protocol-exception-info? string
| | | +--ro hardware-type?    enumeration
| | | +--ro logical-hardware-address? yang:mac-address
| | | +--ro current-hardware-address? yang:mac-address
| | | +--ro media-type?       enumeration
| | | +--ro wavelength?       uint32
| | | +--ro if-description?    string
| | | +--ro actual-line-speed? string
| | | +--ro configured-line-speed? line-speed
| | | +--ro line-duplex-state? enumeration
| | | +--ro flow-control?      bits
| | | +--ro queuing-strategy?  enumeration
| | | +--ro port-role?         enumeration
| | | +--ro port-mode?         enumeration
| | +--ro has-more?          boolean
+---x get-media-detail
| +--ro input
| | +--ro interface-type?    enumeration
| | +--ro interface-name?    union
| +--ro output
| | +--ro interface [interface-type interface-name]
| | | +--ro interface-type    enumeration
| | | +--ro interface-name    union
| | | +--ro (interface-identifier)?
| | | | +--:(sfp)
| | | | | +--ro sfp
| | | | | | +--ro speed?          line-speed
| | | | | | +--ro connector?      enumeration
| | | | | | +--ro encoding?       enumeration

```

```

|         +--ro vendor-name?          string
|         +--ro vendor-oui?           string
|         +--ro vendor-pn?            string
|         +--ro vendor-rev?           string
|         +--ro distance?             enumeration
|         +--ro media-form-factor?    enumeration
|         +--ro wavelength?           string
|         +--ro serial-no?            string
|         +--ro date-code?            string
|         +--ro temperature?          uint32
|         +--ro voltage?              decimal64
|         +--ro current?              decimal64
|         +--ro tx-power?             decimal64
|         +--ro rx-power?            decimal64
+---: (on-board)
|   +--ro on-board
|   |   +--ro speed?                  line-speed
|   |   +--ro connector?             enumeration
|   |   +--ro encoding?              enumeration
|   |   +--ro vendor-name?           string
|   |   +--ro vendor-oui?            string
|   |   +--ro vendor-pn?             string
|   |   +--ro vendor-rev?            string
+---: (gbic)
|   +--ro gbc
|   |   +--ro vendor-name?           string
|   |   +--ro vendor-oui?            string
|   |   +--ro vendor-pn?             string
|   |   +--ro vendor-rev?            string
+---: (xfp)
|   +--ro xfp
|   |   +--ro vendor-name?           string
|   |   +--ro vendor-oui?            string
|   |   +--ro vendor-pn?             string
|   |   +--ro vendor-rev?            string
+---: (unknown)
|   +--ro unknown
|   |   +--ro vendor-name?           string
|   |   +--ro vendor-oui?            string
|   |   +--ro vendor-pn?             string
|   |   +--ro vendor-rev?            string
+---: (qsfp)
|   +--ro qsfp
|   |   +--ro speed?                  line-speed
|   |   +--ro connector?             enumeration
|   |   +--ro encoding?              enumeration
|   |   +--ro vendor-name?           string
|   |   +--ro vendor-oui?            string
|   |   +--ro vendor-pn?             string
|   |   +--ro vendor-rev?            string
|   |   +--ro distance?              enumeration
|   |   +--ro media-form-factor?    enumeration
|   |   +--ro wavelength?           string
|   |   +--ro serial-no?             string
|   |   +--ro date-code?             string
|   |   +--ro temperature?          uint32
|   |   +--ro voltage?              decimal64
|   |   +--ro current?              decimal64
|   |   +--ro tx-power?             decimal64
|   |   +--ro rx-power?            decimal64

```

```

+--:(qsfp)
  +--ro qsfp
    +--ro speed?          line-speed
    +--ro connector?      enumeration
    +--ro encoding?        enumeration
    +--ro vendor-name?     string
    +--ro vendor-oui?      string
    +--ro vendor-pn?       string
    +--ro vendor-rev?      string
    +--ro distance?        enumeration
    +--ro media-form-factor? enumeration
    +--ro wavelength?      string
    +--ro serial-no?       string
    +--ro date-code?       string
    +--ro temperature?     uint32
    +--ro voltage?         decimal64
    +--ro current?         decimal64
    +--ro tx-power?        decimal64
    +--ro rx-power?        decimal64

```

Actions None

brocade-intf-loopback

Description	Provides a data model for managing the interface loopback feature.
Top-level containers	<p>Top-level nodes and their subtree hierarchies follow.</p> <pre> module: brocade-intf-loopback +--rw hide-intf-loopback-holder +--rw interface +--rw loopback [id] +--rw id intf-loopback-port-type +--rw intf-loopback +--rw shutdown? empty +--rw ip +--rw intf_loopback_ip_config +--rw address? intf-loopback-ipv4addr-type </pre>
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre> module: brocade-rbridge +--rw rbridge-id [rbridge-id] +--rw rbridge-id uint32 +--rw brocade-interface:interface +--rw brocade-interface:ve [name] +--rw brocade-interface:name vlan-type +--rw intf-loopback:loopback [id] +--rw intf-loopback:id intf-loopback-port-type +--rw intf-loopback:intf-loopback +--rw intf-loopback:shutdown? empty +--rw intf-loopback:ip +--rw intf-loopback:intf_loopback_ip_config +--rw intf-loopback:address? intf-loopback-ipv4addr-type </pre>
RPCs	None
Actions	None

brocade-ip-access-list

Description Provides a data model for the configuration of IP access control lists (ACLs).

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-ip-access-list
  +--rw ip-acl
    +--rw ip
      +--rw access-list
        +--rw standard [name]
          | +--rw name      l3-acl-policy-name
          | +--rw seq [seq-id]
          |   +--rw seq-id          seq-id-std-ext
          |   +--rw action?         enumeration
          |   +--rw src-host-any-sip union
          |   +--rw src-host-ip?    sip
          |   +--rw src-mask?       sip-mask
          |   +--rw count?          empty
          |   +--rw log?            empty
        +--rw extended [name]
          +--rw name      l3-acl-policy-name
          +--rw seq [seq-id]
            +--rw seq-id          seq-id-std-ext
            +--rw action?         enumeration
            +--rw protocol-type   union
            +--rw src-host-any-sip union
            +--rw src-host-ip?    sip
            +--rw src-mask?       sip-mask
            +--rw sport?          enumeration
            +--rw sport-number-eq-neq-tcp? union
            +--rw sport-number-lt-tcp?    union
            +--rw sport-number-gt-tcp?    union
            +--rw sport-number-eq-neq-udp? union
            +--rw sport-number-lt-udp?    union
            +--rw sport-number-gt-udp?    union
            +--rw sport-number-range-lower-tcp? union
            +--rw sport-number-range-lower-udp? union
            +--rw sport-number-range-higher-tcp? union
            +--rw sport-number-range-higher-udp? union
            +--rw dst-host-any-dip union
            +--rw dst-host-ip?    dip
            +--rw dst-mask?       dip-mask
            +--rw dport?          enumeration
            +--rw dport-number-eq-neq-tcp? union
            +--rw dport-number-lt-tcp?    union
            +--rw dport-number-gt-tcp?    union
            +--rw dport-number-eq-neq-udp? union
            +--rw dport-number-lt-udp?    union
            +--rw dport-number-gt-udp?    union
            +--rw dport-number-range-lower-tcp? union
            +--rw dport-number-range-lower-udp? union
            +--rw dport-number-range-higher-tcp? union
            +--rw dport-number-range-higher-udp? union
            +--rw dscp?            union
            +--rw urg?             empty
            +--rw ack?             empty
            +--rw push?            empty
            +--rw fin?             empty

```

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```

    +--rw rst?                empty
    +--rw sync?               empty
    +--rw count?              empty
    +--rw log?                 empty

```

External augmentations

Nodes that augment other modules and their subtrees follow.

```

module: brocade-interface
  +--rw interface
  |   +--rw gigabitethernet [name]
  |   |   +--rw ip-access-list:ip-acl-interface
  |   |   |   +--rw ip-access-list:ip
  |   |   |   |   +--rw ip-access-list:access-group [ip-access-list ip-direction]
  |   |   |   |   +--rw ip-access-list:ip-access-list    l3-acl-policy-name
  |   |   |   |   +--rw ip-access-list:ip-direction      enumeration
  |   |   |
  |   |   +--rw ip-access-list:ip-direction      enumeration

module: brocade-interface
  +--rw interface
  |   +--rw tengigabitethernet [name]
  |   |   +--rw ip-access-list:ip-acl-interface
  |   |   |   +--rw ip-access-list:ip
  |   |   |   |   +--rw ip-access-list:access-group [ip-access-list ip-direction]
  |   |   |   |   +--rw ip-access-list:ip-access-list    l3-acl-policy-name
  |   |   |   |   +--rw ip-access-list:ip-direction      enumeration
  |   |   |
  |   |   +--rw ip-access-list:ip-direction      enumeration

module: brocade-interface
  +--rw interface
  |   +--rw fortygigabitethernet [name]
  |   |   +--rw ip-access-list:ip-acl-interface
  |   |   |   +--rw ip-access-list:ip
  |   |   |   |   +--rw ip-access-list:access-group [ip-access-list ip-direction]
  |   |   |   |   +--rw ip-access-list:ip-access-list    l3-acl-policy-name
  |   |   |   |   +--rw ip-access-list:ip-direction      enumeration
  |   |   |
  |   |   +--rw ip-access-list:ip-direction      enumeration

module: brocade-interface
  +--rw interface
  |   +--rw port-channel [name]
  |   |   +--rw ip-access-list:ip-acl-interface
  |   |   |   +--rw ip-access-list:ip
  |   |   |   |   +--rw ip-access-list:access-group [ip-access-list ip-direction]
  |   |   |   |   +--rw ip-access-list:ip-access-list    l3-acl-policy-name
  |   |   |   |   +--rw ip-access-list:ip-direction      enumeration
  |   |   |
  |   |   +--rw ip-access-list:ip-direction      enumeration

module: brocade-interface
  +--rw interface
  |   +--rw management [name]
  |   |   +--rw name                man-interface-type
  |   |   +--rw ip
  |   |   |   +--rw ip-access-list:access-group
  |   |   |   |   +--rw ip-access-list:mgmt-ip-access-list?    l3-acl-policy-name
  |   |   |   |   +--rw ip-access-list:mgmt-ip-direction?      enumeration
  |   |   |
  |   |   +--rw ip-access-list:mgmt-ip-direction?      enumeration

module: brocade-interface
  +--rw interface-vlan
  |   +--rw interface
  |   |   +--rw ve [name]
  |   |   |   +--rw name                ve-type
  |   |   |   +--rw ip
  |   |   |   +--rw ip-access-list:ip-acl-interface
  |   |   |   +--rw ip-access-list:ip

```

```

|           +--rw ip-access-list:access-group
|           | [ip-access-list ip-direction]
|           +--rw ip-access-list:ip-access-list      l3-acl-policy-name
|           +--rw ip-access-list:ip-direction        enumeration
module: brocade-rbridge
+--rw rbridge-id [rbridge-id]
+--rw rbridge-id                               uint32
+--rw brocade-interface:interface
+--rw brocade-interface:ve [name]
+--rw brocade-interface:name                     vlan-type
+--rw ip-access-list:ip-acl-interface
+--rw ip-access-list:ip
+--rw ip-access-list:access-group [ip-access-list ip-direction]
+--rw ip-access-list:ip-access-list      l3-acl-policy-name
+--rw ip-access-list:ip-direction        enumeration

```

RPCs None

Actions None

brocade-ip-administration

Description	Provides a data model for configuring the domain Name Server.
Top-level containers	None
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre>module: brocade-common-def +-rw ip +-rw ip-administration:dns +-rw ip-administration:domain-name? string +-rw ip-administration:name-server [name-server-ip] +-rw ip-administration:name-server-ip inet:ip-address</pre>
RPCs	None
Actions	None

brocade-ip-config

Description Provides a data model for managing Layer 3 interfaces. Using this module, you can apply primary and secondary IP addresses to a physical interface, port-channel, or VE interface.

Top-level containers None

External augmentations Nodes that augment other modules and their subtrees follow.

```

module: brocade-interface
  +--rw interface
    +--rw gigabitethernet [name]
      +--rw ip
        +--rw ip-config:ip-config
          +--rw ip-config:mtu?                uint32
          +--rw ip-config:directed-broadcast? empty
          +--rw ip-config:proxy-arp?          empty
          +--rw ip-config:arp-aging-timeout?   uint32
          +--rw ip-config:address [address]
            +--rw ip-config:address          common-def:ipv4-prefix-mask
            +--rw ip-config:secondary?       empty

module: brocade-interface
  +--rw interface
    +--rw tengigabitethernet [name]
      +--rw ip
        +--rw ip-config:ip-config
          +--rw ip-config:mtu?                uint32
          +--rw ip-config:directed-broadcast? empty
          +--rw ip-config:proxy-arp?          empty
          +--rw ip-config:arp-aging-timeout?   uint32
          +--rw ip-config:address [address]
            +--rw ip-config:address          common-def:ipv4-prefix-mask
            +--rw ip-config:secondary?       empty

module: brocade-interface
  +--rw interface
    +--rw fortygigabitethernet [name]
      +--rw ip
        +--rw ip-config:ip-config
          +--rw ip-config:mtu?                uint32
          +--rw ip-config:directed-broadcast? empty
          +--rw ip-config:proxy-arp?          empty
          +--rw ip-config:arp-aging-timeout?   uint32
          +--rw ip-config:address [address]
            +--rw ip-config:address          common-def:ipv4-prefix-mask
            +--rw ip-config:secondary?       empty

module: brocade-interface
  +--rw interface
    +--rw port-channel [name]
      +--rw ip
        +--rw ip-config:hide-ip-holder
        +--rw ip-config:ip-config
          +--rw ip-config:mtu?                uint32
          +--rw ip-config:directed-broadcast? empty
          +--rw ip-config:proxy-arp?          empty

```

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```

        +--rw ip-config:arp-aging-timeout?    uint32
        +--rw ip-config:address [address]
            +--rw ip-config:address            common-def:ipv4-prefix-mask
            +--rw ip-config:secondary?         empty

module: brocade-rbridge
  +--rw rbridge-id [rbridge-id]
      +--rw rbridge-id                        uint32
  +--rw brocade-interface:interface-vrf-config
      +--rw ip
          | +--rw intf-vlan-ip-config;
          | +--rw leaf shutdown                empty

+--rw interface-vlan
  +--rw interface
    +--rw ve [name]
        +--rw name                            ve-type
        +--rw ip
            | +--rw ip-config:ip-config
            | +--rw ip-config:mtu?              uint32
            | +--rw ip-config:directed-broadcast? empty
            | +--rw ip-config:proxy-arp?         empty
            | +--rw ip-config:arp-aging-timeout? uint32
            | +--rw ip-config:address [address]
            | +--rw ip-config:address            common-def:ipv4-prefix-mask
            | +--rw ip-config:secondary?         empty
        +--rw ip-config:shutdown?              empty

module: brocade-rbridge
  +--rw rbridge-id [rbridge-id]
      +--rw rbridge-id                        uint32
  +--rw brocade-interface:interface
      +--rw brocade-interface:ve [name]
          +--rw brocade-interface:name        vlan-type
          +--rw ip-config:ip
              | +--rw ip-config:ip-config
              | +--rw ip-config:mtu?              uint32
              | +--rw ip-config:directed-broadcast? empty
              | +--rw ip-config:proxy-arp?         empty
              | +--rw ip-config:arp-aging-timeout? uint32
              | +--rw ip-config:address [address]
              | +--rw ip-config:address            common-def:ipv4-prefix-mask
              | +--rw ip-config:secondary?         empty
          +--rw ip-config:shutdown?              empty

```

RPCs None

Actions None

brocade-ip-forward

Description Provides a data model for managing Classless Inter-Domain Routing (CIDR) multipath IP Routes. Multipath IP routes have the same network number but differing network masks.

Top-level containers None

External augmentations Nodes that augment other modules and their subtrees follow.
In Brocade VCS Fabric mode:

```
module: brocade-rbridge
  +--rw rbridge-id [rbridge-id]
    +--rw rbridge-id                               uint32
    +--rw ipv6
      | +--rw ip-forward:route [dest]
      |   +--rw ip-forward:dest                     inet:ipv6-prefix
      |   +--rw (next)
      |     +--:(ipv6-hop)
      |       +--rw ip-forward:next-hop?            inet:ipv6-address
    +--rw router
```

In standalone mode:

```
module: brocade-common-def
  +--rw ipv6
    | +--rw ip-forward:route [dest]
    |   +--rw ip-forward:dest                     inet:ipv6-prefix
    |   +--rw (next)
    |     +--:(ipv6-hop)
    |       +--rw ip-forward:next-hop?            inet:ipv6-address
```

RPCs None

Actions None

brocade-ip-policy

Description Provides a data model for managing IP route policies.

IP route policy controls how routes or IP subnets are transported from one subsystem to another subsystem. The IP route policy may perform “permit” or “deny” actions so that matched routes may be allowed or denied to the target subsystem accordingly. Additionally, an IP route policy may be used to modify the characteristics of a matched route and IP subnet pair.

This module models two types of IP route policies; prefix-lists and route-maps.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-ip-policy
  +--rw hide-routemap-holder
  |   +--rw route-map [name action-rm instance]
  |   |   +--rw name          common-def:name-string63
  |   |   +--rw action-rm     action-t
  |   |   +--rw instance      instance-id-t
  |   |   +--rw content
  |   |   |   +--rw match
  |   |   |   |   +--rw interface
  |   |   |   |   |   +--rw tengigabitethernet-rmm*   interface:interface-type
  |   |   |   |   |   +--rw gigabitethernet-rmm*      interface:interface-type
  |   |   |   |   |   +--rw fortygigabitethernet-rmm* interface:interface-type
  |   |   |   |   |   +--rw port-channel-rmm*          interface:channel-group-type
  |   |   |   |   |   +--rw vlan-rmm*                  interface:vlan-type
  |   |   |   |   |   +--rw loopback*                  loopback-intf:intf-loopback-port-type
  |   |   |   |   |   +--rw ve*                        interface:ve-type
  |   |   |   |   +--rw ip
  |   |   |   |   |   +--rw address
  |   |   |   |   |   |   +--rw prefix-list-rmm?      ip-prefix-name-t
  |   |   |   |   |   +--rw next-hop
  |   |   |   |   |   |   +--rw prefix-list-rmm-n?    ip-prefix-name-t
  |   |   |   |   |   +--rw route-source
  |   |   |   |   |   |   +--rw prefix-list-rmrs?     string
  |   |   |   |   +--rw metric
  |   |   |   |   |   +--rw metric-rmm?               metric-t
  |   |   |   +--rw route-type
  |   |   |   |   +--rw route-type-rmm?               match-route-type-t
  |   |   |   +--rw tag
  |   |   |   |   +--rw tag-rmm*                       tag-t
  |   |   |   +--rw as-path
  |   |   |   |   +--rw as-path-access-list-name?     string
  |   |   |   +--rw community
  |   |   |   |   +--rw community-access-list-name?   match-community-expr-t
  |   |   |   +--rw next-hop
  |   |   |   |   +--rw next-hop-filter-val?          uint32
  |   |   |   +--rw protocol
  |   |   |   |   +--rw protocol-bgp?                 empty
  |   |   |   |   +--rw bgp-route-type?               enumeration
  |   |   +--rw set
  |   |   |   +--rw ip
  |   |   |   |   +--rw next-hop
  |   |   |   |   |   +--rw peer-address?             empty
  |   |   |   |   +--rw next-ip
  |   |   |   |   |   +--rw next-hop [next-hop]
  |   |   |   |   |   |   +--rw next-hop              inet:ipv4-address
  |   |   +--rw community

```

```

| | | +--rw set-community-expr?  set-community-expr-t
| | +--rw metric
| | | +--rw delta-rms?    enumeration
| | | +--rw metric-rms?  metric-t
| | +--rw distance
| | | +--rw dist-rms?    distance-t
| | +--rw route-type
| | | +--rw route-type-rms?  set-route-type-t
| | +--rw tag
| | | +--rw tag-rms?    tag-t
| | +--rw weight
| | | +--rw weight-value?  uint32
| | +--rw as-path
| | | +--rw aspath-tag?    empty
| | | +--rw prepend?      string
| | +--rw automatic-tag
| | | +--rw tag-empty?    empty
| | +--rw comm-list
| | | +--rw comm-list-name?  ip-community-list-name-t
| | | +--rw match-comm-delete?  empty
| | +--rw dampening
| | | +--rw half-life?      uint32
| | | +--rw reuse?         uint32
| | | +--rw suppress?      uint32
| | | +--rw max-suppress-time?  uint32
| | +--rw local-preference
| | | +--rw local-preference-value?  uint32
| | +--rw origin
| | | +--rw origin-igp?      empty
| | | +--rw origin-incomplete?  empty
| | +--rw metric-type
| | | +--rw external?    empty
| | | +--rw internal?    empty
| | | +--rw type-1?      empty
| | | +--rw type-2?      empty
| | +--rw continue-holder
| | | +--rw continue?      empty
| | | +--rw continue-val?  uint32
+--rw hide-filter-change-update-delay-holder
+--rw filter-change-update-delay [filter-delay-value]
+--rw filter-delay-value    uint32

```

External augmentations

Nodes that augment other modules and their subtrees follow.

```

module: brocade-rbridge
+--rw rbridge-id [rbridge-id]
+--rw ip
| +--rw ip-policy:prefix-list [name seq-keyword instance]
| | +--rw ip-policy:name          ip-prefix-name-t
| | +--rw ip-policy:seq-keyword    enumeration
| | +--rw ip-policy:instance       instance-id-t
| | +--rw ip-policy:action-ipp?    action-t
| | +--rw ip-policy:prefix-ipp?    inet:ipv4-prefix
| | +--rw ip-policy:ge-ipp?        prefix-len-t
| | +--rw ip-policy:le-ipp?        prefix-len-t
+--rw ip-policy:route-map [name action-rm instance]
+--rw ip-policy:name          common-def:name-string63
+--rw ip-policy:action-rm      action-t
+--rw ip-policy:instance       instance-id-t
+--rw ip-policy:content

```

```

+--rw ip-policy:match
| +--rw ip-policy:interface
| | +--rw ip-policy:tengigabitethernet-rmm*
| |   interface:interface-type
| | +--rw ip-policy:gigabitethernet-rmm*
| |   interface:interface-type
| | +--rw ip-policy:fortygigabitethernet-rmm*
| |   interface:interface-type
| | +--rw ip-policy:port-channel-rmm*
| |   interface:channel-group-type
| | +--rw ip-policy:vlan-rmm*           interface:vlan-type
+--rw ip-policy:ip
| +--rw ip-policy:address
| | +--rw ip-policy:prefix-list-rmm?   ip-prefix-name-t
| | +--rw ip-policy:next-hop
| |   +--rw ip-policy:prefix-list-rmm-n? ip-prefix-name-t
+--rw ip-policy:metric
| +--rw ip-policy:metric-rmm?   metric-t
+--rw ip-policy:route-type
| +--rw ip-policy:route-type-rmm? route-type-t
+--rw ip-policy:tag
| +--rw ip-policy:tag-rmm*   tag-t
+--rw ip-policy:set
+--rw ip-policy:ip
| +--rw ip-policy:next-hop
|   +--rw ip-policy:addr-rms?   inet:ipv4-address
+--rw ip-policy:metric
| +--rw ip-policy:delta-rms?   enumeration
| +--rw ip-policy:metric-rms? metric-t
+--rw ip-policy:distance
| +--rw ip-policy:dist-rms?   distance-t
+--rw ip-policy:route-type
| +--rw ip-policy:route-type-rms? route-type-t
+--rw ip-policy:tag
| +--rw ip-policy:tag-rms?   tag-t
module: brocade-common-def
+--rw ip
+--rw ip-policy:hide-prefix-holder
+--rw ip-policy:prefix-list [name seq-keyword instance]
+--rw ip-policy:name           ip-prefix-name-t
+--rw ip-policy:seq-keyword    enumeration
+--rw ip-policy:instance       instance-id-t
+--rw ip-policy:action-ipp?    action-t
+--rw ip-policy:prefix-ipp?    inet:ipv4-prefix
+--rw ip-policy:ge-ipp?        prefix-len-t
+--rw ip-policy:le-ipp?        prefix-len-t

```

RPCs None

Actions None

brocade-ipv6-access-list

Description Provides a data model for the configuration of IPv6 access control lists (ACLs) and for retrieval of ACL operational data through custom RPCs.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-ipv6-access-list
  +--rw ipv6-acl
    +--rw ipv6
      +--rw access-list
        +--rw standard [name]
          | +--rw name      ipv6-l3-acl-policy-name
          | +--rw seq [seq-id]
          |   +--rw seq-id      ip-access-list:seq-id-std-ext
          |   +--rw action      enumeration
          |   +--rw src-host-any-sip union
          |   +--rw src-host-ip? sip
          |   +--rw count?      empty
          |   +--rw log?        empty
        +--rw extended [name]
          +--rw name      ipv6-l3-acl-policy-name
          +--rw seq [seq-id]
            +--rw seq-id      ip-access-list:seq-id-std-ext
            +--rw action      enumeration
            +--rw protocol-type union
            +--rw src-host-any-sip union
            +--rw src-host-ip? sip
            +--rw sport?      enumeration
            +--rw sport-number-eq-neq-tcp? union
            +--rw sport-number-lt-tcp? union
            +--rw sport-number-gt-tcp? union
            +--rw sport-number-eq-neq-udp? union
            +--rw sport-number-lt-udp? union
            +--rw sport-number-gt-udp? union
            +--rw sport-number-range-lower-tcp? union
            +--rw sport-number-range-lower-udp? union
            +--rw sport-number-range-higher-tcp? union
            +--rw sport-number-range-higher-udp? union
            +--rw dst-host-any-dip union
            +--rw dst-host-ip? dip
            +--rw dport?      enumeration
            +--rw dport-number-eq-neq-tcp? union
            +--rw dport-number-lt-tcp? union
            +--rw dport-number-gt-tcp? union
            +--rw dport-number-eq-neq-udp? union
            +--rw dport-number-lt-udp? union
            +--rw dport-number-gt-udp? union
            +--rw dport-number-range-lower-tcp? union
            +--rw dport-number-range-lower-udp? union
            +--rw dport-number-range-higher-tcp? union
            +--rw dport-number-range-higher-udp? union
            +--rw dscp?      union
            +--rw urg?        empty
            +--rw ack?        empty
            +--rw push?       empty
            +--rw fin?        empty
            +--rw rst?        empty
            +--rw sync?       empty

```

```

        +--rw count?                               empty
        +--rw log?                                   empty

```

External augmentations Nodes that augment other modules and their subtrees follow.

```

module: brocade-interface
  +--rw interface
  |   +--rw management [name]
  |   |   +--rw name                man-interface-type
  |   |   +--rw ipv6
  |   |   |   +--rw ipv6-address-cont
  |   |   |   |   +--rw ipv6-global-address?    common-def:ipv6-address-prefix
  |   |   |   |   +--rw autoconfig?            empty
  |   |   |   +--ro ipv6-address*               string
  |   |   |   +--ro ipv6-gateways*              string
  |   |   |   +--rw ipv6-access-list:access-group
  |   |   |   |   +--rw ipv6-access-list:mgmt-ipv6-access-list?
  |   |   |   |   |   ipv6-l3-acl-policy-name
  |   |   |   +--rw ipv6-access-list:mgmt-ip-direction?    enumeration

```

RPCs None

Actions None

brocade-lacp

Description Provides a data model to manage the Link Aggregation Control Protocol (LACP).

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-lacp
  +--rw lacp
    +--rw system-priority?  uint32
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-interface
  +--rw interface
    +--rw gigabitethernet [name]
      | +--rw lacp:lacp
      |   +--rw lacp:timeout?      enumeration
      |   +--rw lacp:std_port-priority?  uint32
    +--rw tengigabitethernet [name]
      | +--rw lacp:lacp
      |   +--rw lacp:timeout?      enumeration
      |   +--rw lacp:std_port-priority?  uint32
    +--rw fortygigabitethernet [name]
      +--rw lacp:lacp
        +--rw lacp:timeout?      enumeration
        +--rw lacp:std_port-priority?  uint32
```

RPCs None

Actions None

brocade-lag

Description	Provides a data model to manage the link aggregation or IEEE 802.1AX-2008 feature.
Top-level containers	None
External augmentations	None
RPCs	Custom RPCs defined in this module follow.

```

+---x get-port-channel-detail
|   +--ro input
|   |   +--ro last-aggregator-id?   interface:portchannel-type
|   +--ro output
|   |   +--ro lacp
|   |   |   +--ro aggregator-id?           interface:portchannel-type
|   |   |   +--ro aggregator-type?        enumeration
|   |   |   +--ro isvlag?                  boolean
|   |   |   +--ro aggregator-mode?        enumeration
|   |   |   +--ro admin-key?              lacp-key
|   |   |   +--ro oper-key?               lacp-key
|   |   |   +--ro actor-system-id?        yang:mac-address
|   |   |   +--ro partner-system-id?      yang:mac-address
|   |   |   +--ro system-priority?        uint32
|   |   |   +--ro partner-oper-priority?  uint32
|   |   |   +--ro rx-link-count?          uint64
|   |   |   +--ro tx-link-count?          uint64
|   |   |   +--ro individual-agg?         uint32
|   |   |   +--ro ready-agg?              uint32
|   |   |   +--ro partner-oper-key?       lacp-key
|   |   |   +--ro aggr-member
|   |   |   |   +--ro rbridge-id?          uint32
|   |   |   |   +--ro interface-type?     enumeration
|   |   |   |   +--ro interface-name?     union
|   |   |   |   +--ro actor-port?         uint64
|   |   |   |   +--ro sync?               uint64
|   |   +--ro has-more?                  boolean
+---x get-portchannel-info-by-intf
|   +--ro input
|   |   +--ro interface-type?   enumeration
|   |   +--ro interface-name?   union
|   +--ro output
|   |   +--ro lacp
|   |   |   +--ro interface-type?           enumeration
|   |   |   +--ro interface-name?           union
|   |   |   +--ro actor-port?               uint64
|   |   |   +--ro admin-key?                lacp-key
|   |   |   +--ro oper-key?                 lacp-key
|   |   |   +--ro actor-system-id?          yang:mac-address
|   |   |   +--ro partner-system-id?        yang:mac-address
|   |   |   +--ro system-priority?          uint32
|   |   |   +--ro partner-oper-priority?    uint32
|   |   |   +--ro actor-priority?           uint32
|   |   |   +--ro receive-machine-state?    enumeration
|   |   |   +--ro periodic-transmission-machine-state? enumeration
|   |   |   +--ro mux-machine-state?        enumeration

```

+--ro admin-state?	lacp-state
+--ro oper-state?	lacp-state
+--ro partner-oper-state?	lacp-state
+--ro partner-oper-port?	uint64
+--ro actor-chip-number?	uint32
+--ro actor-max-deskew?	uint32
+--ro partner-chip-number?	uint32
+--ro partner-max-deskew?	uint32
+--ro actor-brcd-state?	brcd-trunk-states
+--ro partner-brcd-state?	brcd-trunk-states

Actions None

brocade-license

Description Provides a data model to manage licenses in a VCS fabric. It provides custom actions to perform the following operations:

- Return licence ID information
- Return license key values
- Return licensing information about dynamic Ports on Demand (PODs).

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-license
  +--rw license
  |   +--ro add
  |   |   +--ro input
  |   |   |   +--ro (str-file)?
  |   |   |   |   +--:(licStr)
  |   |   |   |   |   +--ro licStr          string
  |   |   |   |   |   +--:(FTP-URL)
  |   |   |   |   |   |   +--ro FTP-URL      string
  |   |   |   |   |   |   +--:(SCP-URL)
  |   |   |   |   |   |   |   +--ro SCP-URL   string
  |   |   |   |   |   |   |   +--ro rbridge-id? common-def:rbridge-id-type
  |   |   +--ro remove
  |   |   |   +--ro input
  |   |   |   |   +--ro licStr          string
  |   |   |   |   +--ro rbridge-id?    common-def:rbridge-id-type
  |   +--rw dpod
  |   |   +--rw port-id [port-id]
  |   |   |   +--rw port-id          interface:interface-type
  |   |   |   +--rw operation?      license-dpod-operation-type

```

External augmentations None

RPCs None

Actions Proprietary actions defined in this module follow.

```

module: brocade-common-def
  +--rw show
  |   +--rw license:license
  |   |   +--action id
  |   |   |   +--input
  |   |   |   |   +--ro (license:single-or-all)
  |   |   |   |   |   +--:( license:rbridge-id)
  |   |   |   |   |   |   +--rw license:rbridge-id    common-def:rbridge-id-type
  |   |   |   |   |   |   +--:( license:all)
  |   |   |   |   |   |   |   +--rw license:all        empty
  |   |   |   +--output
  |   |   |   |   +--ro license:licenseid-list [licenseid-rbridge-id]
  |   |   |   |   |   +--ro license:licenseid-rbridge-id    common-def:rbridge-id-type
  |   |   |   |   |   +--ro license-id                      string
  |   +--rw license:enh-show-license-keys
  |   |   +--action license:license

module: brocade-common-def
  +--rw show
  |   +--rw license:enh-show-license-keys
  |   |   +--action license:license

```

```

+--input
  +--ro (license:single-or-all)
    +--:( license:rbridge-id)
      | +--rw license:rbridge-id      common-def:rbridge-id-type
    +--:( license:all)
      +--rw license:all                empty
+--output
  +--ro license:license-list [license-rbridge-id]
  +--ro license:license-rbridge-id  common-def:rbridge-id-type
  +--ro license:license-details
    +--ro license:license-data      string
    +--ro license:license-expiry-date  string
    +--ro license:license-feature-name  string

module: brocade-common-def
+--rw show
| +--rw license:enh-show-license-keys
+--action license:dpod
+--input
  +--ro (license:single-or-all)
    +--:( license:rbridge-id)
      | +--rw license:rbridge-id      common-def:rbridge-id-type
    +--:( license:all)
      +--rw license:all                empty
+--output
  +--ro license:showdpod-list [showdpod-rbridge-id]
  +--ro license:showdpod-rbridge-id  common-def:rbridge-id-type
  +--ro dpod-details
    +--ro license:dpod-ports          uint32
    +--ro license:dpod-licenses-installed  uint32
    +--ro license:num-ports-provisioned  uint32
    +--ro license:num-ports-reserved      uint32
    +--ro license:num-ports-license-available  uint32

```

brocade-linecard-management

Description Provides a data model for managing line cards. Using this module, you can configure a line card, power off a line card, or run show commands to display line card information.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-linecard-management
  +--rw linecardservice
    +--ro power-off
      | +--ro input
      |   +--ro linecard      slotnum
    +--ro power-on
      +--ro input
        +--ro linecard      slotnum
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-rbridge
  +--rw rbridge-id [rbridge-id]
  +--rw linecard-management:global-lc-holder
  +--rw linecard-management:linecard
    +--rw linecard-management:linecards [linecardName]
      +--rw linecard-management:linecardName      linecardid
      +--rw linecard-management:linecardType?     enumeration

module: brocade-common-def
  +--rw show
    | +--rw linecard-management:linecardinfo
    | +--rw linecard-management:sfminfo
    | +--rw linecard-management:mminfor
    | +--rw linecard-management:slotsinfor
```

RPCs None

Actions Proprietary actions defined in this module follow.

Display line card information:

```
module: brocade-common-def
  +--rw show
    | +--rw linecard-management:linecardinfo
    |   +--action linecard-management:linecard
    |     +--input
    |     +--output
```

Display switch fabric module information:

```
module: brocade-common-def
  +--rw show
    | +--rw linecard-management:sfminfo
    |   +--action linecard-management:sfm
    |     +--input
    |     +--output
```

Display management module information:

```
module: brocade-common-def
  +--rw show
```

```
|  +--rw linecard-management:mminfo
    +--action linecard-management:mm
      +--input
      +--output
```

Display information about all slots:

```
module: brocade-common-def
  +--rw show
  |   +--rw linecard-management:slotsinfor
      +--action linecard-management:slots
        +--input
        +--output
```

Power off a line card:

```
module: brocade-linecard-management
  +--rw linecardservice
    +--action power-off
      +--input
      +--rw linecard slotnum
```

brocade-lldp

Description Provides a data model to manage the Link Layer Discovery Protocol (LLDP). LLDP is a data-link layer protocol, operating above the MAC service layer, that performs basic neighbor discovery. The discovery process involves advertising the network device identity, capabilities, and interconnections on an IEEE 802 LAN network.

The protocol is formally referred to by the IEEE as Station and Media Access Control Connectivity Discovery specified in standards document 802.1AB.

Top-level containers None

External augmentations Nodes that augment other modules and their subtrees follow.

```

module: brocade-interface
  +--rw interface
  |   +--rw gigabitethernet [name]
  |   |   +--rw lldp:lldp
  |   |   |   +--rw lldp:cee
  |   |   |   |   +--rw lldp:lldp-cee-on-off?  enumeration
  |   |   |   +--rw lldp:dcbx-version?        enumeration
  |   |   |   +--rw lldp:disable?              empty
  |   |   |   +--rw lldp:iscsi-priority?       uint32
  |   |   |   +--rw lldp:profile?              string
  |   +--rw tengigabitethernet [name]
  |   |   +--rw lldp:lldp
  |   |   |   +--rw lldp:cee
  |   |   |   |   +--rw lldp:lldp-cee-on-off?  enumeration
  |   |   |   +--rw lldp:dcbx-version?        enumeration
  |   |   |   +--rw lldp:disable?              empty
  |   |   |   +--rw lldp:iscsi-priority?       uint32
  |   |   |   +--rw lldp:profile?              string
  |   +--rw fortygigabitethernet [name]
  |   |   +--rw lldp:lldp
  |   |   |   +--rw lldp:cee
  |   |   |   |   +--rw lldp:lldp-cee-on-off?  enumeration
  |   |   |   +--rw lldp:dcbx-version?        enumeration
  |   |   |   +--rw lldp:disable?              empty
  |   |   |   +--rw lldp:iscsi-priority?       uint32
  |   |   |   +--rw lldp:profile?              string
  +--rw protocol
  |   +--rw lldp:lldp?
  |   |   +--rw lldp:description?              string
  |   |   +--rw lldp:hello?                    uint32
  |   |   +--rw lldp:mode?                    enumeration
  |   |   +--rw lldp:multipplier?              uint32
  |   |   +--rw lldp:advertise
  |   |   |   +--rw lldp:dcbx-fcoe-app-tlv?      empty
  |   |   |   +--rw lldp:dcbx-fcoe-logical-link-tlv?  empty
  |   |   |   +--rw lldp:dcbx-iscsi-app-tlv?      empty
  |   |   |   +--rw lldp:dcbx-tlv?                empty
  |   |   |   +--rw lldp:dot1-tlv?                empty
  |   |   |   +--rw lldp:dot3-tlv?                empty
  |   |   |   +--rw lldp:optional-tlv
  |   |   |   |   +--rw lldp:management-address?    empty
  |   |   |   |   +--rw lldp:port-description?      empty
  |   |   |   |   +--rw lldp:system-capabilities?   empty

```



```

|   +--rw lldp:adv-tlv-system-description?   empty
|   +--rw lldp:adv-tlv-system-name?          empty
+--rw lldp:system-name?                      string
+--rw lldp:system-description?               string
+--rw lldp:iscsi-priority?                   uint32
+--rw lldp:disable?                          empty
+--rw lldp:profile [profile-name]
  +--rw lldp:profile-name                    string
  +--rw lldp:description?                    string
  +--rw lldp:hello?                          uint32
  +--rw lldp:mode?                           enumeration
  +--rw lldp:multipplier?                     uint32
  +--rw lldp:advertise
    +--rw lldp:dcbx-fcoe-app-tlv?            empty
    +--rw lldp:dcbx-fcoe-logical-link-tlv?   empty
    +--rw lldp:dcbx-iscsi-app-tlv?          empty
    +--rw lldp:dcbx-tlv?                     empty
    +--rw lldp:dot1-tlv?                     empty
    +--rw lldp:dot3-tlv?                     empty
    +--rw lldp:optional-tlv
      +--rw lldp:management-address?         empty
      +--rw lldp:port-description?            empty
      +--rw lldp:system-capabilities?         empty
      +--rw lldp:adv-tlv-system-description? empty
      +--rw lldp:adv-tlv-system-name?        empty

```

RPCs None

Actions None

brocade-logical-chassis

Description	REVIEWERS PLEASE PROVIDE.DESCRPTION. INFORMATION NOT AVAILABLE IN YANG MODULE.
Top-level containers	None
External augmentations	Nodes that augment other modules and their subtrees follow. <pre>module: brocade-rbridge +--rw rbridge-id [rbridge-id] +--rw logical-chassis-cmds</pre>
RPCs	None
Actions	None

brocade-mac-access-list

Description Provides a data model for configuring MAC access lists and for applying them to interfaces. A custom RPC enables retrieval of the configured ingress and egress policies per interface.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-mac-access-list
  +--rw mac
    +--rw access-list
      +--rw standard [name]
        |   +--rw name      mac-acl-name
        |   +--rw seq [seq-id]
        |   |   +--rw seq-id          uint64
        |   |   +--rw action?         enumeration
        |   |   +--rw source          union
        |   |   +--rw srchost?        mac-address-type
        |   |   +--rw src-mac-addr-mask? src-dst-mac-address-mask-type
        |   |   +--rw count?         empty
        |   |   +--rw log?           empty
        +--rw extended [name]
          +--rw name      mac-acl-name
          +--rw seq [seq-id]
            +--rw seq-id          uint64
            +--rw action?         enumeration
            +--rw source          union
            +--rw srchost?        mac-address-type
            +--rw src-mac-addr-mask? src-dst-mac-address-mask-type
            +--rw dst            union
            +--rw dsthost?       mac-address-type
            +--rw dst-mac-addr-mask? src-dst-mac-address-mask-type
            +--rw ethertype?     union
            +--rw count?         empty
            +--rw log?           empty
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-interface
  +--rw interface
    |   +--rw gigabitethernet [name]
    |   |   +--rw mac-access-list:mac
    |   |   |   +--rw mac-access-list:access-group [mac-access-list mac-direction]
    |   |   |   |   +--rw mac-access-list:mac-access-list      mac-acl-name
    |   |   |   |   +--rw mac-access-list:mac-direction        enumeration
    |   +--rw tengigabitethernet [name]
    |   |   +--rw mac-access-list:mac
    |   |   |   +--rw mac-access-list:access-group [mac-access-list mac-direction]
    |   |   |   |   +--rw mac-access-list:mac-access-list      mac-acl-name
    |   |   |   |   +--rw mac-access-list:mac-direction        enumeration
    |   +--rw fortygigabitethernet [name]
    |   |   +--rw mac-access-list:mac
    |   |   |   +--rw mac-access-list:access-group [mac-access-list mac-direction]
    |   |   |   |   +--rw mac-access-list:mac-access-list      mac-acl-name
    |   |   |   |   +--rw mac-access-list:mac-direction        enumeration
    |   +--rw port-channel [name]
    |   |   +--rw mac-access-list:mac
    |   |   |   +--rw mac-access-list:access-group [mac-access-list mac-direction]
    |   |   |   |   +--rw mac-access-list:mac-access-list      mac-acl-name
    |   |   |   |   +--rw mac-access-list:mac-direction        enumeration
```

2 brocade-mac-access-list

```

+--rw interface-vlan
+--rw interface
+--rw vlan [name]
+--rw mac-access-list:mac
+--rw mac-access-list:access-group
    [mac-access-list mac-direction]
+--rw mac-access-list:mac-access-list mac-acl-name
+--rw mac-access-list:mac-direction enumeration
```

RPCs Custom RPCs defined in this module follow.

Return the ingress and egress policies for an interface:

```

+---x get-mac-acl-for-intf
+--ro input
| +--ro interface-type? enumeration
| +--ro interface-name? union
| +--ro direction? enumeration
+--ro output
+--ro interface [interface-type interface-name]
+--ro interface-type enumeration
+--ro interface-name union
+--ro ingress-policy
| +--ro policy-name? string
+--ro egress-policy
+--ro policy-name? string
```

Actions None

brocade-mac-address-table

Description Provides a data model for configuring the MAC address table and returning information about the MAC address table through the get-mac-address-table custom RPC. Using this module, you can set the aging time, add static addresses to the MAC address table, or forward the MAC address.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-mac-address-table
  +--rw mac-address-table
    +--rw static [mac-address forward interface-type interface-name vlan vlanid]
      | +--rw mac-address      mac-access-list:mac-address-type
      | +--rw forward          enumeration
      | +--rw interface-type    enumeration
      | +--rw interface-name    string
      | +--rw vlan              enumeration
      | +--rw vlanid            interface:vlan-type
    +--rw aging-time?          uint32
```

External augmentations None

RPCs Custom RPCs defined in this module follow.

```
+---x get-mac-address-table
  +--ro input
    | +--ro (request-type)?
    |   +--: (get-request)
    |     | +--ro mac-address?          yang:mac-address
    |     +--: (get-next-request)
    |       +--ro last-mac-address-details
    |         +--ro last-mac-address?    yang:mac-address
    |         +--ro last-vlan-id?        interface:vlan-type
    |         +--ro last-mac-type?       enumeration
  +--ro output
    +--ro mac-address-table [vlanid mac-address]
      | +--ro vlanid                    interface:vlan-type
      | +--ro mac-address                yang:mac-address
      | +--ro mac-type?                  enumeration
      | +--ro mac-state?                  enumeration
      | +--ro forwarding-interface
      |   +--ro interface-type?          enumeration
      |   +--ro interface-name?          union
    +--ro has-more?                      boolean
```

Actions None

brocade-nameserver

Description Provides a data model to manage the Fibre Channel (FC) Name Server, which realizes the FC-GS-6 requirements.

This module provides the means for monitoring the operation of, and configuring some parameters of, one or more instances of the Fibre Channel Name Server functionality.

The Fibre Channel Name Server provides a way for N_Ports and NL_Ports to register and discover Fibre Channel attributes. Such attributes include names, addresses, types, features, and so on, at various protocol layers, including upper layer protocols specific to Fibre Channel, which are sometimes referred to as *FC-4s*.

Physically, Fibre Channel is an interconnection of multiple communication points, called N_Ports, interconnected either by a switching network, called a *fabric*, or by a point-to-point link. A Fibre Channel “node” consists of one or more N_Ports. A fabric may consist of multiple Interconnect Elements, some of which are switches. An N_Port connects to the fabric by way of a port on a switch called an F_Port. When multiple FC nodes are connected to a single port on a switch by way of an *Arbitrated Loop* topology, the switch port is called an FL_Port, and the nodes' ports are called NL_Ports. The term Nx_Port is used to refer to either an N_Port or an NL_Port.

Top-level containers None

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-common-def
  +--rw show
  |   +--rw name-server:name-server
```

RPCs None

Actions Proprietary actions defined in this module follow.

Display detailed name server information.

```
module: brocade-common-def
  +--rw show
    +--rw name-server:name-server
      +--action name-server:detail
        +--input
          +--rw name-server:rbridge-id      common-def:rbridge-id-type
        +--output
          +--ro name-server:show-nameserver [nameserver-portid]
            +--ro name-server:nameserver-portid      nameserver-portid-type
            +--ro name-server:nameserver-portname     common-def:wwn-type
            +--ro name-server:nameserver-nodename     common-def:wwn-type
            +--ro name-server:nameserver-src          uint32
            +--ro name-server:nameserver-fc4s         nameserver-fc4s-type
            +--ro name-server:nameserver-portsymb     nameserver-symbolic-name-type
            +--ro name-server:nameserver-nodesymb     nameserver-symbolic-name-type
            +--ro name-server:nameserver-fabric-portname
              common-def:wwn-type
            +--ro name-server:nameserver-permanent-portname
              common-def:wwn-type
            +--ro name-server:nameserver-devicetype
```

```

        nameserver-devicetype-type
    +--ro name-server:nameserver-index          uint32
    +--ro name-server:nameserver-porttype
        nameserver-porttype-type
    +--ro name-server:nameserver-cos              name-server-cos-type
    +--ro name-server:nameserver-sharearea
        nameserver-sharearea-type
    +--ro name-server:nameserver-redirect
        nameserver-redirect-type
    +--ro name-server:nameserver-xlatedomain
        nameserver-xlatedomain-type

```

Display brief name server information.

```

module: brocade-common-def
  +--rw show
    +--rw name-server:name-server
      +--action name-server:brief
        +--input
          +--rw name-server:rbridge-id          common-def:rbridge-id-type
        +--output

```

Display nodes matching a specified WWN or PID.

```

module: brocade-common-def
  +--rw show
    +--rw name-server:name-server
      +--action name-server:nodefind
        +--input
          +--ro (name-server:pid-or-wwn)
            +--:( name-server:wwn)
              | +--rw name-server:wwn          common-def:wwn-type
            +--:( name-server:pid)
              +--rw name-server:pid            nameserver-fcid-hexstring-type
        +--output

```

Display all nodes zoned with a device matching a specified WWN or PID.

```

module: brocade-common-def
  +--rw show
    +--rw name-server:name-server
      +--action name-server:zonemember
        +--input
          +--ro (name-server:pid-or-wwn)
            +--:( name-server:wwn)
              | +--rw name-server:wwn          common-def:wwn-type
            +--:( name-server:pid)
              +--rw name-server:pid            nameserver-fcid-hexstring-type
        +--output

```

brocade-netconf-ext

Description	Provides a data model to manage NETCONF. It provides an RPC to return client capabilities.
Top-level containers	None
External augmentations	None
RPCs	<p>Custom RPCs defined in this module follow.</p> <pre> +---x get-netconf-client-capabilities +--ro input +--ro session-id? uint32 +--ro output +--ro session +--ro session-id? uint32 +--ro user-name? string +--ro vendor? string +--ro product? string +--ro version? string +--ro identity? string +--ro host-ip? inet:ipv4-address +--ro time? ietfyang:date-and-time </pre>
Actions	None

brocade-ntp

Description Provides a data model to configure Network Time Protocol (NTP) servers and monitor the active server.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-ntp
  +--rw ntp
    +--rw server [ip]
      +--rw ip      inet:ip-address
```

External augmentations None

RPCs Custom RPCs defined in this module follow.

Return address of the active NTP server:

```
+---x show-ntp
  +--ro input
  |   +--ro rbridge-id?    common-def:rbridge-id-all-type
  +--ro output
    +--ro node-active-server
      +--ro rbridge-id-out?  common-def:rbridge-id-type
      +--ro (ip4-6-or-local)?
        +--:(ip4-6)
        |   +--ro active-server?    inet:ip-address
        +--:(local)
          +--ro LOCL?                boolean
```

Actions None

brocade-ospf

Description	Provides a data model to configure the Open Shortest Path First (OSPF) version 2 protocol. Using this module, you can configure the global OSPF parameters and per-interface parameters.
Top-level containers	None
External augmentations	<pre> module: brocade-rbridge +--rw rbridge-id [rbridge-id] +--rw rbridge-id +--rw router +--rw ospf:ospf? +--rw ospf:database-overflow-interval? common-def:time-interval-sec +--rw ospf:default-information-originate? +--rw ospf:always? empty +--rw ospf:def-orig-metric? uint32 +--rw ospf:def-orig-metric-type? metric-type +--rw ospf:def-orig-route-map? string +--rw ospf:default-metric? uint32 +--rw ospf:external-lsdb-limit? uint32 +--rw ospf:log +--rw ospf:adjacency? +--rw ospf:dr-only? empty +--rw ospf:log-all? empty +--rw ospf:bad-packet? +--rw ospf:log-checksum? empty +--rw ospf:log-database? empty +--rw ospf:log-retransmit? empty +--rw ospf:ospf-metric-type? metric-type +--rw ospf:neighbor [neighbor-addr] +--rw ospf:neighbor-addr ospf-ipv4-address +--rw ospf:nssa-translator? +--rw ospf:nssa-translator-flag? empty +--rw ospf:redistribute +--rw ospf:connected? +--rw ospf:connected-route-map? string +--rw ospf:static? +--rw ospf:static-route-map? string +--rw ospf:rfc1583-compatibility? +--rw ospf:rfc1583-compatibility-flag? empty +--rw ospf:area [area-id] +--rw ospf:area-id ospf-area-id +--rw ospf:normal? empty +--rw ospf:nssa +--rw ospf:metric +--rw ospf:nssa-value? big-metric +--rw ospf:no-summary1? empty +--rw ospf:default-information-originate? empty +--rw ospf:range [range-address range-mask] +--rw ospf:range-address inet:ipv4-address +--rw ospf:range-mask inet:ipv4-address +--rw ospf:range-effect enumeration +--rw ospf:stub +--rw ospf:metric +--rw ospf:stub-value? big-metric +--rw ospf:no-summary? empty </pre>

```

|   |--rw ospf:virtual-link [virt-link-neighbor]
|   |--rw ospf:virt-link-neighbor      inet:ipv4-address
|   |--rw ospf:authentication-key
|   |   |--rw ospf:no-encrypt-auth-key-table
|   |   |   |--rw ospf:no-encrypt-auth-key?    ospf-auth-psswd-string
|   |   |--rw ospf:auth-key-table
|   |   |   |--rw ospf:encrypttype?    key-type
|   |   |   |--rw ospf:auth-key?      ospf-auth-psswd-string
|   |--rw ospf:dead-interval?          common-def:time-interval-sec
|   |--rw ospf:hello-interval?          common-def:time-interval-sec
|   |--rw ospf:retransmit-interval?     common-def:time-interval-sec
|   |--rw ospf:transmit-delay?          common-def:time-interval-sec
|   |--rw ospf:md5-authentication
|   |   |--rw ospf:key-activation-wait-time?
|   |   |       common-def:time-interval-sec
|   |   |--rw ospf:no-encrypt-key-table
|   |   |   |--rw ospf:no-encrypt-key-id?    uint32
|   |   |   |--rw ospf:no-encrypt-key?      ospf-auth-psswd-string
|   |--rw ospf:key-table
|   |   |--rw ospf:key-id?                uint32
|   |   |--rw ospf:key?                    key-type
|   |   |--rw ospf:md5-authentication-key? ospf-auth-psswd-string
|--rw ospf:auto-cost
|   |--rw ospf:reference-bandwidth
|   |   |--rw ospf:ref-bandwidth?    band-width
|   |--rw ospf:use-active-ports?    empty
|--rw ospf:distance [route-type]
|   |--rw ospf:route-type    route-type-enum
|   |--rw ospf:dist-value?    uint32
|--rw ospf:distribute-list
|   |--rw ospf:route-map
|   |   |--rw ospf:route-map?    string
|   |--rw ospf:in?                empty
|--rw ospf:max-metric
|   |--rw ospf:router-lsa
|   |   |--rw ospf:all-lsas?    empty
|--rw ospf:summary-address [sum-address sum-address-mask]
|   |--rw ospf:sum-address      ospf-ipv4-address
|   |--rw ospf:sum-address-mask inet:ipv4-address
|--rw ospf:timers
|   |--rw ospf:lsa-group-pacing? common-def:time-interval-sec
|   |--rw ospf:throttle
|   |   |--rw ospf:spf
|   |   |   |--rw ospf:init-delay?    common-def:time-interval-msec
|   |   |   |--rw ospf:hold-time?     common-def:time-interval-msec
|   |   |   |--rw ospf:max-hold-time? common-def:time-interval-msec
|--rw ospf:permit
|   |--rw ospf:redistribute [redist-value route-option]
|   |   |--rw ospf:redist-value    uint32
|   |   |--rw ospf:route-option    route-option-type
|   |   |--rw ospf:address?        inet:ipv4-address
|   |   |--rw ospf:mask?           inet:ipv4-address
|   |   |--rw ospf:set-metric-val?  uint32
|   |   |--rw ospf:match-metric-val? uint32
|--rw ospf:deny
|   |--rw ospf:redistribute [redist-value route-option]
|   |   |--rw ospf:redist-value    uint32
|   |   |--rw ospf:route-option    route-option-type
|   |   |--rw ospf:address?        inet:ipv4-address
|   |   |--rw ospf:mask?           inet:ipv4-address

```

```

|         +--rw ospf:set-metric-val?      uint32
|         +--rw ospf:match-metric-val?    uint32
+--rw brocade-interface:protocol
+--rw brocade-interface:interface
  +--rw brocade-interface:ve [name]
    +--rw brocade-interface:name          vlan-type
    +--rw ip-config:ip
      +--rw ip-config:ip-config
        +--rw ip-config:mtu?              uint32
        +--rw ip-config:directed-broadcast? empty
        +--rw ip-config:proxy-arp?        empty
        +--rw ip-config:arp-aging-timeout? uint32
        +--rw ip-config:address [address]
          +--rw ip-config:address          common-def:ipv4-prefix-mask
          +--rw ip-config:secondary?      empty
      +--rw ospf:interface-vlan-ospf-conf
        +--rw ospf:ospf1
          +--rw ospf:area?                  ospf-area-id
          +--rw ospf:auth-change-wait-time? common-def:time-interval-sec
          +--rw ospf:authentication-key
            +--rw ospf:no-encrypt-auth-key-table
              +--rw ospf:no-encrypt-auth-key? ospf-auth-psswd-string
            +--rw ospf:auth-key-table
              +--rw ospf:encrypttype?      key-type
              +--rw ospf:auth-key?         ospf-auth-psswd-string
          +--rw ospf:dead-interval?        common-def:time-interval-sec
          +--rw ospf:hello-interval?       common-def:time-interval-sec
          +--rw ospf:retransmit-interval?  common-def:time-interval-sec
          +--rw ospf:transmit-delay?       common-def:time-interval-sec
          +--rw ospf:md5-authentication
            +--rw ospf:key-activation-wait-time? common-def:time-interval-sec
            +--rw ospf:no-encrypt-key-table
              +--rw ospf:no-encrypt-key-id? uint32
              +--rw ospf:no-encrypt-key?    ospf-auth-psswd-string
            +--rw ospf:key-table
              +--rw ospf:key-id?            uint32
              +--rw ospf:key?              key-type
              +--rw ospf:md5-authentication-key? ospf-auth-psswd-string
          +--rw ospf:cost?                  uint32
          +--rw ospf:database-filter
            +--rw ospf:all-out?              empty
            +--rw ospf:all-external?         database-filter-options
            +--rw ospf:all-summary-external? database-filter-options
          +--rw ospf:mtu-ignore?            empty
          +--rw ospf:network?               enumeration
          +--rw ospf:passive?               empty
          +--rw ospf:priority?              uint32
      +--rw ip-config:shutdown?            empty
module: brocade-interface
  +--rw interface
    | +--rw gigabitethernet [name]
    | | +--rw name                      interface-type

```

```

| | | +--rw ip
| | | | +--rw ospf:interface-gi-ospf-conf
| | | | | +--rw ospf:ospf1
| | | | | | +--rw ospf:area? ospf-area-id
| | | | | | +--rw ospf:auth-change-wait-time?
| | | | | | | common-def:time-interval-sec
| | | | | +--rw ospf:authentication-key
| | | | | | +--rw ospf:no-encrypt-auth-key-table
| | | | | | | +--rw ospf:no-encrypt-auth-key? ospf-auth-psswd-string
| | | | | | +--rw ospf:auth-key-table
| | | | | | | +--rw ospf:encrypttype? key-type
| | | | | | | +--rw ospf:auth-key? ospf-auth-psswd-string
| | | | | +--rw ospf:dead-interval?
| | | | | | common-def:time-interval-sec
| | | | | +--rw ospf:hello-interval?
| | | | | | common-def:time-interval-sec
| | | | | +--rw ospf:retransmit-interval?
| | | | | | common-def:time-interval-sec
| | | | | +--rw ospf:transmit-delay?
| | | | | | common-def:time-interval-sec
| | | | | +--rw ospf:md5-authentication
| | | | | | +--rw ospf:key-activation-wait-time?
| | | | | | | common-def:time-interval-sec
| | | | | | +--rw ospf:no-encrypt-key-table
| | | | | | | +--rw ospf:no-encrypt-key-id? uint32
| | | | | | | +--rw ospf:no-encrypt-key? ospf-auth-psswd-string
| | | | | | +--rw ospf:key-table
| | | | | | | +--rw ospf:key-id? uint32
| | | | | | | +--rw ospf:key? key-type
| | | | | | +--rw ospf:md5-authentication-key?
| | | | | | | ospf-auth-psswd-string
| | | | | +--rw ospf:cost? uint32
| | | | | +--rw ospf:database-filter
| | | | | | +--rw ospf:all-out? empty
| | | | | | +--rw ospf:all-external? database-filter-options
| | | | | | +--rw ospf:all-summary-external? database-filter-options
| | | | | +--rw ospf:mtu-ignore? empty
| | | | | +--rw ospf:network? enumeration
| | | | | +--rw ospf:passive? empty
| | | | | +--rw ospf:priority? uint32
|
| +--rw tengigabitethernet [name]
| | +--rw name interface-type
| | +--rw ip
| | | +--rw ospf:interface-te-ospf-conf
| | | | +--rw ospf:ospf1
| | | | | +--rw ospf:area? ospf-area-id
| | | | | +--rw ospf:auth-change-wait-time?
| | | | | | common-def:time-interval-sec
| | | | | +--rw ospf:authentication-key
| | | | | | +--rw ospf:no-encrypt-auth-key-table
| | | | | | | +--rw ospf:no-encrypt-auth-key? ospf-auth-psswd-string
| | | | | | +--rw ospf:auth-key-table
| | | | | | | +--rw ospf:encrypttype? key-type
| | | | | | | +--rw ospf:auth-key? ospf-auth-psswd-string
| | | | | +--rw ospf:dead-interval?
| | | | | | common-def:time-interval-sec
| | | | | +--rw ospf:hello-interval?
| | | | | | common-def:time-interval-sec
| | | | | +--rw ospf:retransmit-interval?

```

```

        common-def:time-interval-sec
| | | +--rw ospf:transmit-delay?
| | |   common-def:time-interval-sec
| | | +--rw ospf:md5-authentication
| | | | +--rw ospf:key-activation-wait-time?
| | | |   common-def:time-interval-sec
| | | | +--rw ospf:no-encrypt-key-table
| | | | | +--rw ospf:no-encrypt-key-id?   uint32
| | | | | +--rw ospf:no-encrypt-key?     ospf-auth-psswd-string
| | | | +--rw ospf:key-table
| | | | | +--rw ospf:key-id?             uint32
| | | | | +--rw ospf:key?               key-type
| | | | +--rw ospf:md5-authentication-key?
| | | |   ospf-auth-psswd-string
| | | +--rw ospf:cost?                  uint32
| | | +--rw ospf:database-filter
| | | | +--rw ospf:all-out?              empty
| | | | +--rw ospf:all-external?         database-filter-options
| | | | +--rw ospf:all-summary-external? database-filter-options
| | | +--rw ospf:mtu-ignore?            empty
| | | +--rw ospf:network?                enumeration
| | | +--rw ospf:passive?                empty
| | | +--rw ospf:priority?              uint32

| +--rw fortygigabitethernet [name]
| | +--rw name                      interface-type
| | +--rw ip
| | | +--rw ospf:interface-fo-ospf-conf
| | | | +--rw ospf:ospf1
| | | | | +--rw ospf:area?              ospf-area-id
| | | | +--rw ospf:auth-change-wait-time?
| | | | | common-def:time-interval-sec
| | | | +--rw ospf:authentication-key
| | | | | +--rw ospf:no-encrypt-auth-key-table
| | | | | | +--rw ospf:no-encrypt-auth-key?   ospf-auth-psswd-string
| | | | | +--rw ospf:auth-key-table
| | | | | | +--rw ospf:encrypttype?   key-type
| | | | | | +--rw ospf:auth-key?     ospf-auth-psswd-string
| | | | +--rw ospf:dead-interval?
| | | | | common-def:time-interval-sec
| | | | +--rw ospf:hello-interval?
| | | | | common-def:time-interval-sec
| | | | +--rw ospf:retransmit-interval?
| | | | | common-def:time-interval-sec
| | | | +--rw ospf:transmit-delay?
| | | | | common-def:time-interval-sec
| | | | +--rw ospf:md5-authentication
| | | | | +--rw ospf:key-activation-wait-time?
| | | | | | common-def:time-interval-sec
| | | | | +--rw ospf:no-encrypt-key-table
| | | | | | +--rw ospf:no-encrypt-key-id?   uint32
| | | | | | +--rw ospf:no-encrypt-key?     ospf-auth-psswd-string
| | | | | +--rw ospf:key-table
| | | | | | +--rw ospf:key-id?             uint32
| | | | | | +--rw ospf:key?               key-type
| | | | | +--rw ospf:md5-authentication-key?
| | | | |   ospf-auth-psswd-string
| | | | +--rw ospf:cost?                  uint32
| | | | +--rw ospf:database-filter
| | | | | +--rw ospf:all-out?              empty

```

```

| | | | | +-rw ospf:all-external? database-filter-options
| | | | | +-rw ospf:all-summary-external? database-filter-options
| | | | | +-rw ospf:mtu-ignore? empty
| | | | | +-rw ospf:network? enumeration
| | | | | +-rw ospf:passive? empty
| | | | | +-rw ospf:priority? uint32
+--rw interface-vlan
| +--rw interface
| | +-rw ve [name]
| | | +-rw name ve-type
| | | +-rw ip
| | | | +-rw ospf:interface-vlan-ospf-conf
| | | | +-rw ospf:ospf1
| | | | | +-rw ospf:area? ospf-area-id
| | | | | +-rw ospf:auth-change-wait-time?
| | | | | | common-def:time-interval-sec
| | | | | +-rw ospf:authentication-key
| | | | | | +-rw ospf:no-encrypt-auth-key-table
| | | | | | | +-rw ospf:no-encrypt-auth-key?
| | | | | | | | ospf-auth-psswd-string
| | | | | | +-rw ospf:auth-key-table
| | | | | | | +-rw ospf:encrypttype? key-type
| | | | | | | +-rw ospf:auth-key? ospf-auth-psswd-string
| | | | | +-rw ospf:dead-interval?
| | | | | | common-def:time-interval-sec
| | | | | +-rw ospf:hello-interval?
| | | | | | common-def:time-interval-sec
| | | | | +-rw ospf:retransmit-interval?
| | | | | | common-def:time-interval-sec
| | | | | +-rw ospf:transmit-delay?
| | | | | | common-def:time-interval-sec
| | | | | +-rw ospf:md5-authentication
| | | | | | +-rw ospf:key-activation-wait-time?
| | | | | | | common-def:time-interval-sec
| | | | | | +-rw ospf:no-encrypt-key-table
| | | | | | | +-rw ospf:no-encrypt-key-id? uint32
| | | | | | | +-rw ospf:no-encrypt-key? ospf-auth-psswd-string
| | | | | +-rw ospf:key-table
| | | | | | +-rw ospf:key-id? uint32
| | | | | | +-rw ospf:key? key-type
| | | | | | +-rw ospf:md5-authentication-key?
| | | | | | | ospf-auth-psswd-string
| | | | | +-rw ospf:cost? uint32
| | | | | +-rw ospf:database-filter
| | | | | | +-rw ospf:all-out? empty
| | | | | | +-rw ospf:all-external?
| | | | | | | database-filter-options
| | | | | | +-rw ospf:all-summary-external?
| | | | | | | database-filter-options
| | | | | +-rw ospf:mtu-ignore? empty
| | | | | +-rw ospf:network? enumeration
| | | | | +-rw ospf:passive? empty
| | | | | +-rw ospf:priority? uint32

```

RPCs None

Actions None

brocade-pim

Description	Provides a data model to configure PIM.
Top-level containers	None
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre> module: brocade-rbridge-id +--rw hide-pim-holder +--rw global-pim-cards module: brocade-interface +--rw interface +--rw gigabitethernet +--rw pim-intf-phy-cfg +--rw tengigabitethernet +--rw pim-intf-phy-cfg +--rw fortygigabitethernet +--rw pim-intf-phy-cfg </pre>
RPCs	None
Actions	None

brocade-policer

- Description** Provides a data model for the Policer. It provides container nodes to define and manage the following policer entities:
- A class map that classifies traffic according to traffic proprieties that you configure with policing parameters.
 - A police priority map that remaps frame Class of Service (CoS) values (802.1p priority bits in a VLAN tag) to conform color or exceed color values when rates conform or exceed limits set in a classification map.
 - A policy map that associates QoS and policing parameters to traffic belonging to classification maps.
 - A service policy node used to bind a policy map to an interface.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-policer
  +--rw police-priority-map [name]
  |   +--rw name          map-name-type
  |   +--rw conform
  |   |   +--rw map-pri0-conform?    priority-value
  |   |   +--rw map-pri1-conform?    priority-value
  |   |   +--rw map-pri2-conform?    priority-value
  |   |   +--rw map-pri3-conform?    priority-value
  |   |   +--rw map-pri4-conform?    priority-value
  |   |   +--rw map-pri5-conform?    priority-value
  |   |   +--rw map-pri6-conform?    priority-value
  |   |   +--rw map-pri7-conform?    priority-value
  |   +--rw exceed
  |   |   +--rw map-pri0-exceed?     priority-value
  |   |   +--rw map-pri1-exceed?     priority-value
  |   |   +--rw map-pri2-exceed?     priority-value
  |   |   +--rw map-pri3-exceed?     priority-value
  |   |   +--rw map-pri4-exceed?     priority-value
  |   |   +--rw map-pri5-exceed?     priority-value
  |   |   +--rw map-pri6-exceed?     priority-value
  |   |   +--rw map-pri7-exceed?     priority-value
  +--rw class-map [name]
  |   +--rw name          map-name-type
  |   +--rw match
  |   |   +--rw access-group
  |   |   |   +--rw access-group-name?    mac-ip-acl-name
  +--rw policy-map [po-name]
  |   +--rw po-name      map-name-type
  |   +--rw class [cl-name]
  |   |   +--rw cl-name          map-name-type
  |   |   +--rw police
  |   |   |   +--rw cir?          uint64
  |   |   |   +--rw cbs?          uint64
  |   |   |   +--rw eir?          uint64
  |   |   |   +--rw ebs?          uint64
  |   |   |   +--rw set-priority?  string
  |   |   |   +--rw conform-set-dscp? dscp-value
  |   |   |   +--rw conform-set-prec? precedence-value
  |   |   |   +--rw conform-set-tc? tc-value
  |   |   |   +--rw exceed-set-dscp? dscp-value
  |   |   |   +--rw exceed-set-prec? precedence-value

```

```

|   +--rw exceed-set-tc?      tc-value
+--rw set
|   +--rw set_cos_tc
|   |   +--rw cos?           uint8
|   |   +--rw traffic-class? uint8
|   +--rw set_dscp
|   |   +--rw dscp?          uint16
+--rw map
|   +--rw cos-mutation?      map-name-type
|   +--rw cos-traffic-class? map-name-type
|   +--rw dscp-cos?          map-name-type
|   +--rw dscp-traffic-class? map-name-type
|   +--rw dscp-mutation?     map-name-type
|   +--rw sflow?             map-name-type
+--rw shape
|   +--rw shaping_rate?      shaping-rate-limit
+--rw scheduler
|   +--rw strict-priority
|   |   +--rw priority-number?      uint8
|   |   +--rw scheduler-type?       enumeration
|   |   +--rw dwrr-traffic-class0?  uint32
|   |   +--rw dwrr-traffic-class1?  uint32
|   |   +--rw dwrr-traffic-class2?  uint32
|   |   +--rw dwrr-traffic-class3?  uint32
|   |   +--rw dwrr-traffic-class4?  uint32
|   |   +--rw dwrr-traffic-class5?  uint32
|   |   +--rw dwrr-traffic-class6?  uint32
|   |   +--rw dwrr-traffic-class-last? uint32
|   |   +--rw TC1?                  shaping-rate-limit
|   |   +--rw TC2?                  shaping-rate-limit
|   |   +--rw TC3?                  shaping-rate-limit
|   |   +--rw TC4?                  shaping-rate-limit
|   |   +--rw TC5?                  shaping-rate-limit
|   |   +--rw TC6?                  shaping-rate-limit
|   |   +--rw TC7?                  shaping-rate-limit
+--rw priority-mapping-table
|   +--rw import
|   |   +--rw cee?                  map-name-type

```

External augmentations Nodes that augment other modules and their subtrees follow.

```

module: brocade-interface
+--rw interface
|   +--rw gigabitethernet [name]
|   |   +--rw policer:service-policy
|   |   |   +--rw policer:in?      map-name-type
|   |   |   +--rw policer:out?     map-name-type
+--rw tengigabitethernet [name]
|   +--rw policer:service-policy
|   |   +--rw policer:in?      map-name-type
|   |   +--rw policer:out?     map-name-type
+--rw fortygigabitethernet [name]
|   +--rw policer:service-policy
|   |   +--rw policer:in?      map-name-type
|   |   +--rw policer:out?     map-name-type

```

RPCs None

Actions None

brocade-port-profile

Description Provides a data model for creating and activating port-profiles and for mapping a port-profile to MAC addresses.

A port-profile is a collection of network policies to be applied to network traffic on a given port.

Automatic Migration of Port Profiles (AMPP) provides fabric-wide configuration of Ethernet policies and achieves per-port-profile forwarding and enables network level features to support VM mobility.

With Server Virtualization, a VM can move from one physical server to another. When such a move occurs, it is ideal for the access layer to apply the network policies on the VM transparently. The Brocade Virtual Access Layer (VAL) service provides such automatic migration of the port-profile on a given VM MAC address transparently.

A port-profile typically comprises the subprofiles listed in [Table 4](#).

TABLE 4 AMPP subprofiles

Subprofile	Description
VLAN profile	VLAN membership and filtering rules.
QoS profile	QoS policies.
FCoE profile	The attributes needed for the port to support FCoE. These attributes include FCoE VLAN, FCMAP, FCoE Priority, Virtual Fabric ID, and so on.
Security profile	Security rules needed for the server port, typically enabling 802.1x with EAP TLV extensions for VM Mobility, and MAC-based standard and extended ACLs.

VM MAC addresses are added to a port-profile to specify all the network attributes for a server port. A port-profile is activated on a server port as part of regular MAC learning. VM MAC to port-profile association is specified using the brocade-port-profile management module. The actual association in hardware is applied when the MAC address is learned.

Top-level containers

Top-level nodes and their subtree hierarchies follow.

```

module: brocade-port-profile
  +--rw port-profile [name]
  |   +--rw name                                     common-def:name-string128
  |   +--rw allow
  |   |   +--rw nonprofiledmacs?    empty
  |   +--rw vlan-profile?
  |   |   +--rw switchport?
  |   |   |   +--rw basic?    empty
  |   |   |   +--rw mode
  |   |   |   |   +--rw vlan-mode?    appm-sw-mode-type
  |   |   |   +--rw access
  |   |   |   |   +--rw vlan
  |   |   |   |   |   +--rw name?    interface:vlan-type
  |   |   |   +--rw trunk
  |   |   |   |   +--rw allowed
  |   |   |   |   |   +--rw vlan
  |   |   |   |   |   |   +--rw all?    empty
  |   |   |   |   |   |   +--rw none?    empty
  |   |   |   |   |   |   +--rw add?    interface:ui32-vlan-range
  |   |   |   |   |   |   +--rw except?  interface:ui32-vlan-range
  |   |   |   |   |   |   +--rw remove?  interface:ui32-vlan-range
  |   |   |   |   |   +--rw native-vlan? uint32
  |   +--rw fcoe-profile?

```

```

| |   +--rw fcoeport
| |   |   +--rw fcoe-map-name?   string
+--rw qos-profile?
| |   +--rw cee?   common-def:name-string32
| |   +--rw qos
| |   |   +--rw cos?           int32
| |   |   +--rw trust
| |   |   |   +--rw trust-cos?   empty
| |   |   +--rw cos-mutation?   common-def:name-string32
| |   |   +--rw cos-traffic-class? common-def:name-string32
| |   |   +--rw flowcontrol
| |   |   |   +--rw flowcontrolglobal
| |   |   |   |   +--rw tx?   enumeration
| |   |   |   |   +--rw rx?   enumeration
| |   |   +--rw pfc [pfc-cos]
| |   |   |   +--rw pfc-cos   int32
| |   |   |   +--rw pfc-tx   enumeration
| |   |   |   +--rw pfc-rx   enumeration
+--rw security-profile?
| |   +--rw mac
| |   |   +--rw access-group
| |   |   |   +--rw access-group-name?   mac-access-list:mac-acl-name
| |   |   |   +--rw in?                 empty
+--rw restrict-flooding-container
| |   +--rw restrict-flooding?   empty
+--rw port-profile-global
| |   +--rw port-profile [name]
| |   |   +--rw name           common-def:name-string128
| |   |   +--rw activate?     empty
| |   |   +--rw static [mac-address]
| |   |   |   +--rw mac-address   mac-access-list:mac-address-type

```

External augmentations

Nodes that augment other modules and their subtrees follow.

```

module: brocade-port-profile/vlan-profile
+--rw switchport
+--rw mode
+--rw access
+--rw trunk

module: brocade-port-profile/qos-profile
+--rw cee
+--rw qos
+--rw trust
+--rw flowcontrol
+--rw flowcontrolglobal

module: brocade-port-profile/fcoe-profile
+--rw fcoeport
+--rw fcoe-map-name

module: brocade-port-profile/security-profile
+--rw access-group
+--rw acces-group-name
+--rw in

module: brocade-interface
+--rw interface
+--rw gigabitethernet [name]
|   +--rw appm:port-profile-port?   empty

```

2 brocade-port-profile

```
+++rw tengigabitethernet [name]
|  +-rw appm:port-profile-port?  empty
+++rw fortygigabitethernet [name]
|  +-rw appm:port-profile-port?  empty
+++rw port-channel [name]
|  +-rw appm:port-profile-port?  empty
```

RPCs None

Actions None

brocade-port-profile-ext

Description	Provides extensions to the brocade-port-profile module. It provides custom RPCs for returning information about configured port-profiles.
Top-level containers	None
External augmentations	None
RPCs	<p>Custom RPCs defined in this module follow.</p> <pre> +---x get-port-profile-for-intf +--ro input +--ro (request-type)? +--: (get-request) +--ro interface-type? enumeration +--ro interface-name? union +--: (getnext-request) +--ro last-received-interface-info +--ro interface-type? enumeration +--ro interface-name? union +--ro output +--ro interface +--ro interface-type? enumeration +--ro interface-name? union +--ro port-profile +--ro name? common-def:name-string64 +--ro has-more? boolean +---x get-port-profile-status +--ro input +--ro port-profile-name? common-def:name-string64 +--ro port-profile-status? enumeration +--ro (request-type)? +--: (getnext-request) +--ro last-received-port-profile-info +--ro profile-name? common-def:name-string64 +--ro profile-mac? inet:mac-address +--ro output +--ro port-profile [name] +--ro name common-def:name-string64 +--ro ppid? uint32 +--ro is-active? boolean +--ro mac-association [mac] +--ro mac inet:mac-address +--ro applied-interface +--ro interface-type? enumeration +--ro interface-name? union +--ro has-more? boolean </pre>
Actions	None

brocade-qos

Description Provides a data model for managing Quality of Service (QoS).

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-qos
  +--rw qos
    +--rw map
      | +--rw dscp-mutation [dscp-mutation-map-name]
      | | +--rw dscp-mutation-map-name map-name-type
      | | +--rw mark [dscp-in-values]
      | | | +--rw dscp-in-values UI32DscpMutationRange
      | | | +--rw to int32
      | +--rw dscp-traffic-class [dscp-traffic-class-map-name]
      | | +--rw dscp-traffic-class-map-name map-name-type
      | | +--rw mark [dscp-in-values]
      | | | +--rw dscp-in-values UI32DscpMutationRange
      | | | +--rw to int32
      +--rw dscp-cos [dscp-cos-map-name]
      | +--rw dscp-cos-map-name map-name-type
      | +--rw mark [dscp-in-values]
      | | +--rw dscp-in-values UI32DscpMutationRange
      | | +--rw to int32
      +--rw cos-mutation [name]
      | +--rw name map-name-type
      | +--rw cos0? int32
      | +--rw cos1? int32
      | +--rw cos2? int32
      | +--rw cos3? int32
      | +--rw cos4? int32
      | +--rw cos5? int32
      | +--rw cos6? int32
      | +--rw cos7 int32
      +--rw cos-traffic-class [name]
      | +--rw name map-name-type
      | +--rw cos0? int32
      | +--rw cos1? int32
      | +--rw cos2? int32
      | +--rw cos3? int32
      | +--rw cos4? int32
      | +--rw cos5? int32
      | +--rw cos6? int32
      | +--rw cos7 int32
      +--rw red-profile [profile-id]
      | +--rw profile-id RedProfileType
      | +--rw min-threshold int32
      | +--rw max-threshold int32
      | +--rw drop-probability int32
      +--rw queue
      | +--rw multicast
      | | +--rw scheduler
      | | | +--rw dwrr
      | | | | +--rw dwrr-traffic-class0? int32
      | | | | +--rw dwrr-traffic-class1? int32
      | | | | +--rw dwrr-traffic-class2? int32
      | | | | +--rw dwrr-traffic-class3? int32
      | | | | +--rw dwrr-traffic-class4? int32
      | | | | +--rw dwrr-traffic-class5? int32

```



```

| |         +--rw dwrr-traffic-class6?  int32
| |         +--rw dwrr-traffic-class7?  int32
| +--rw scheduler
| |   +--rw strict-priority
| |     +--rw priority-number?          int32
| |     +--rw scheduler-type?           enumeration
| |     +--rw dwrr-traffic-class0?      int32
| |     +--rw dwrr-traffic-class1?      int32
| |     +--rw dwrr-traffic-class2?      int32
| |     +--rw dwrr-traffic-class3?      int32
| |     +--rw dwrr-traffic-class4?      int32
| |     +--rw dwrr-traffic-class5?      int32
| |     +--rw dwrr-traffic-class6?      int32
| |     +--rw dwrr-traffic-class-last?  int32
+--rw rcv-queue
  +--rw multicast
    +--rw threshold
      | +--rw traffic-class0?  int32
      | +--rw traffic-class1?  int32
      | +--rw traffic-class2?  int32
      | +--rw traffic-class3?  int32
      | +--rw traffic-class4?  int32
      | +--rw traffic-class5?  int32
      | +--rw traffic-class6?  int32
      | +--rw traffic-class7?  int32
    +--rw rate-limit
      +--rw limit?  int32
      +--rw burst?  int32

```

External augmentations

Nodes that augment other modules and their subtrees follow.

```

module: brocade-interface
  +--rw interface
    +--rw gigabitethernet [name]
      +--rw qos:qos
        +--rw qos:default-cos?          int32
        +--rw qos:trust
          | +--rw qos:trust-cos?  empty
          | +--rw qos:trust-dscp? empty
        +--rw qos:cos-mutation?          map-name-type
        +--rw qos:cos-traffic-class?     map-name-type
        +--rw qos:dscp-mutation?          map-name-type
        +--rw qos:dscp-traffic-class?     map-name-type
        +--rw qos:dscp-cos?               map-name-type
        +--rw qos:random-detect
          | +--rw qos:cos [red-cos-value]
          |   +--rw qos:red-cos-value  uint32
          |   +--rw qos:red-profile-id? uint32
        +--rw qos:rcv-queue
          | +--rw qos:cos-threshold
          |   +--rw qos:cos0-threshold? uint32
          |   +--rw qos:cos1-threshold? uint32
          |   +--rw qos:cos2-threshold? uint32
          |   +--rw qos:cos3-threshold? uint32
          |   +--rw qos:cos4-threshold? uint32
          |   +--rw qos:cos5-threshold? uint32
          |   +--rw qos:cos6-threshold? uint32
          |   +--rw qos:cos7-threshold? uint32
        +--rw qos:flowcontrol
          +--rw qos:link-level-flowcontrol

```

```

        +--rw qos:flowcontrol-tx?    enumeration
        +--rw qos:flowcontrol-rx?    enumeration

module: brocade-interface
  +--rw interface
  |   +--rw tengigabitethernet [name]
  |   |   +--rw qos:qos
  |   |   |   +--rw qos:default-cos?          int32
  |   |   |   +--rw qos:trust
  |   |   |   |   +--rw qos:trust-cos?        empty
  |   |   |   |   +--rw qos:trust-dscp?       empty
  |   |   |   +--rw qos:cos-mutation?         map-name-type
  |   |   |   +--rw qos:cos-traffic-class?     map-name-type
  |   |   |   +--rw qos:dscp-mutation?         map-name-type
  |   |   |   +--rw qos:dscp-traffic-class?    map-name-type
  |   |   |   +--rw qos:dscp-cos?             map-name-type
  |   |   |   +--rw qos:random-detect
  |   |   |   |   +--rw qos:cos [red-cos-value]
  |   |   |   |   |   +--rw qos:red-cos-value    uint32
  |   |   |   |   |   +--rw qos:red-profile-id?  uint32
  |   |   |   +--rw qos:rcv-queue
  |   |   |   |   +--rw qos:cos-threshold
  |   |   |   |   |   +--rw qos:cos0-threshold?  uint32
  |   |   |   |   |   +--rw qos:cos1-threshold?  uint32
  |   |   |   |   |   +--rw qos:cos2-threshold?  uint32
  |   |   |   |   |   +--rw qos:cos3-threshold?  uint32
  |   |   |   |   |   +--rw qos:cos4-threshold?  uint32
  |   |   |   |   |   +--rw qos:cos5-threshold?  uint32
  |   |   |   |   |   +--rw qos:cos6-threshold?  uint32
  |   |   |   |   |   +--rw qos:cos7-threshold?  uint32
  |   |   |   +--rw qos:flowcontrol
  |   |   |   |   +--rw qos:link-level-flowcontrol
  |   |   |   |   |   +--rw qos:flowcontrol-tx?  enumeration
  |   |   |   |   |   +--rw qos:flowcontrol-rx?  enumeration
  |   |   |   +--rw qos:pfc [pfc-cos]
  |   |   |   |   +--rw qos:pfc-cos              int32
  |   |   |   |   +--rw qos:pfc-flowcontrol-tx    enumeration
  |   |   |   |   +--rw qos:pfc-flowcontrol-rx    enumeration
  |   +--rw fortygigabitethernet [name]
  |   |   +--rw qos:qos
  |   |   |   +--rw qos:default-cos?          int32
  |   |   |   +--rw qos:trust
  |   |   |   |   +--rw qos:trust-cos?        empty
  |   |   |   |   +--rw qos:trust-dscp?       empty
  |   |   |   +--rw qos:cos-mutation?         map-name-type
  |   |   |   +--rw qos:cos-traffic-class?     map-name-type
  |   |   |   +--rw qos:dscp-mutation?         map-name-type
  |   |   |   +--rw qos:dscp-traffic-class?    map-name-type
  |   |   |   +--rw qos:dscp-cos?             map-name-type
  |   |   |   +--rw qos:random-detect
  |   |   |   |   +--rw qos:cos [red-cos-value]
  |   |   |   |   |   +--rw qos:red-cos-value    uint32
  |   |   |   |   |   +--rw qos:red-profile-id?  uint32
  |   |   |   +--rw qos:flowcontrol
  |   |   |   |   +--rw qos:link-level-flowcontrol
  |   |   |   |   |   +--rw qos:flowcontrol-tx?  enumeration

```

```

        |   +--rw qos:flowcontrol-rx?   enumeration
+--rw qos:pfc [pfc-cos]
    +--rw qos:pfc-cos                    int32
    +--rw qos:pfc-flowcontrol-tx        enumeration
    +--rw qos:pfc-flowcontrol-rx        enumeration

module: brocade-interface
+--rw interface
|   +--rw port-channel [name]
|   |   +--rw qos:qos
|   |   |   +--rw qos:default-cos?      int32
|   |   |   +--rw qos:trust
|   |   |   |   +--rw qos:trust-cos?    empty
|   |   |   |   +--rw qos:trust-dscp?  empty
|   |   |   +--rw qos:cos-mutation?    map-name-type
|   |   |   +--rw qos:cos-traffic-class? map-name-type
|   |   |   +--rw qos:dscp-mutation?    map-name-type
|   |   |   +--rw qos:dscp-traffic-class? map-name-type
|   |   |   +--rw qos:dscp-cos?         map-name-type
|   |   |   +--rw qos:random-detect
|   |   |   |   +--rw qos:cos [red-cos-value]
|   |   |   |   |   +--rw qos:red-cos-value    uint32
|   |   |   |   |   +--rw qos:red-profile-id?  uint32
|   |   |   +--rw qos:flowcontrol
|   |   |   |   +--rw qos:link-level-flowcontrol
|   |   |   |   |   +--rw qos:flowcontrol-tx?  enumeration
|   |   |   |   |   +--rw qos:flowcontrol-rx?  enumeration
|   |   |   +--rw qos:pfc [pfc-cos]
|   |   |   |   +--rw qos:pfc-cos            int32
|   |   |   |   +--rw qos:pfc-flowcontrol-tx  enumeration
|   |   |   |   +--rw qos:pfc-flowcontrol-rx  enumeration

```

RPCs None

Actions None

brocade-ras

Description Provides a data model for managing to log collections, such as those used by supportsave and copy support operations, and for USB management.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-ras
  +--rw copy
  |   +--rw support
  |   |   +--ro ftp
  |   |   |   +--ro input
  |   |   |   |   +--ro user          string
  |   |   |   |   +--ro host          string
  |   |   |   |   +--ro directory     directory-path
  |   |   |   |   +--ro password?    string
  |   |   |   |   +--ro rbridge-id?  switchidType
  |   |   |   |   +--ro timeout?     timeout-value
  |   |   |   +--ro output
  |   |   |   |   +--ro supportSaveResult [rbridge-id]
  |   |   |   |   +--ro rbridge-id      switchidType
  |   |   |   |   +--ro status-code    copy-support-status
  |   |   |   |   +--ro status-str?    string
  |   |   +--ro scp
  |   |   |   +--ro input
  |   |   |   |   +--ro user          string
  |   |   |   |   +--ro host          string
  |   |   |   |   +--ro directory     directory-path
  |   |   |   |   +--ro password?    string
  |   |   |   |   +--ro rbridge-id?  switchidType
  |   |   |   |   +--ro timeout?     timeout-value
  |   |   |   +--ro output
  |   |   |   |   +--ro supportSaveResult [rbridge-id]
  |   |   |   |   +--ro rbridge-id      switchidType
  |   |   |   |   +--ro status-code    copy-support-status
  |   |   |   |   +--ro status-str?    string
  |   |   +--ro usb
  |   |   |   +--ro input
  |   |   |   |   +--ro directory     string
  |   |   |   |   +--ro rbridge-id?  switchidType
  |   |   |   |   +--ro timeout?     timeout-value
  |   |   |   +--ro output
  |   |   |   |   +--ro supportSaveResult [rbridge-id]
  |   |   |   |   +--ro rbridge-id      switchidType
  |   |   |   |   +--ro status-code    copy-support-status
  |   |   |   |   +--ro status-str?    string
  |   +--ro support-interactive
  |   |   +--ro input
  |   |   +--ro output
  |   |   |   +--ro result?    string
  +--rw logging
  |   +--rw raslog
  |   |   +--rw message
  |   |   |   +--rw msgId [msgId]
  |   |   |   |   +--rw msgId      string
  |   |   |   |   +--rw severity?  message-severity
  |   |   |   |   +--rw suppress?  empty
  |   |   |   |   +--rw syslog?    empty
  |   +--rw module

```

```

| | | +--rw modId [modId]
| | |   +--rw modId    string
| | +--rw console?    raslog-console
+--rw syslog-server [syslogip]
| +--rw syslogip     inet:ip-address
| +--rw secure?      empty
| +--rw port?        uint16
+--rw auditlog
| +--rw class [class]
|   +--rw class      audit-class
+--rw syslog-facility
| +--rw local?       facility-enum
+--rw system
+--rw usb
| +--ro on
| | +--ro input
| |   +--ro rbridge-id?  switchidType
+--ro off
| +--ro input
| |   +--ro rbridge-id?  switchidType
+--ro dir
| +--ro input
| |   +--ro rbridge-id?  switchidType
+--ro remove
| +--ro input
| |   +--ro directory    string
| |   +--ro file         string
| |   +--ro rbridge-id?  switchidType
+--rw switch-attributes
+--rw rbridge-id [rbridge-id]
| +--rw rbridge-id    switchidType-noall
| +--rw chassis-name? string
| +--rw host-name?    string
+--rw chassis-name?   string
+--rw host-name?      string
+--rw support
+--rw autoupload-param
| +--rw hostip        inet:ip-address
| +--rw username      string
| +--rw directory     string
| +--rw protocol      string
| +--rw password?     string
+--rw autoupload
| +--rw enable?       empty
+--rw ffdc?           empty
+--rw logtest
+--rw raslog
+--ro gmsg
| +--ro input
| |   +--ro messageID?  string
+--rw auditlog
+--ro gmsg
| +--ro input
| |   +--ro messageID?  string

```

External augmentations None

RPCs Custom RPCs defined in this module follow.

```

+---x bna-config-cmd
| +--ro input
| | +--ro src      string
| | +--ro dest     string
| +--ro output
|   +--ro session-id      uint32
|   +--ro status          cmd-status
|   +--ro status-string?  string
+---x bna-config-cmd-status
  +--ro input
  | +--ro session-id      uint32
  +--ro output
    +--ro status          cmd-status
    +--ro status-string?  string

```

Actions Proprietary actions defined in this module follow.

Upload support data to FTP server:

```

module: brocade-ras
  +--rw copy
    +--rw support
      action ftp
      +--input
        +--rw user          string
        +--rw host          string
        +--rw directory     directory-path
        +--rw password?     string
        +--rw rbridge-id?   switchidType
        +--rw timeout?      timeout-value
      +--output
        +--ro supportSaveResult [rbridge-id]
          +--ro rbridge-id      switchidType
          +--ro status-code     copy-support-status
          +--ro status-str?     string

```

Upload support data to SCP server:

```

module: brocade-ras
  +--rw copy
    +--rw support
      action scp
      +--input
        +--rw user          string
        +--rw host          string
        +--rw directory     directory-path
        +--rw password?     string
        +--rw rbridge-id?   switchidType
        +--rw timeout?      timeout-value
      +--output
        +--ro supportSaveResult [rbridge-id]
          +--ro rbridge-id      switchidType
          +--ro status-code     copy-support-status
          +--ro status-str?     string

```

Upload support data to USB device:

```

module: brocade-ras
  +--rw copy
    +--rw support

```

```

action usb
+--input
  +--rw directory          string
  +--rw rbridge-id?        switchidType
  +--rw timeout?           timeout-value
+--output
  +--ro supportSaveResult [rbridge-id]
    +--ro rbridge-id        switchidType
    +--ro status-code       copy-support-status
    +--ro status-str?       string

```

Enable interactive mode:

```

module: brocade-ras
  +--rw copy
    action support-interactive
  +--input
  +--output
    +--ro result            string

```

Enable automatic upload:

```

module: brocade-ras
  +--rw system
    +--rw autoupload
      action enable
    +--input
      +--rw rbridge-id?    switchidType
      +--rw user           string
      +--rw host           string
      +--rw directory      string
      +--rw password?      string
    +--output

```

Disable automatic upload:

```

module: brocade-ras
  +--rw system
    +--rw autoupload
      action disable
    +--input
      +--rw rbridge-id?    switchidType
    +--output

```

Enable USB:

```

module: brocade-ras
  +--rw system
    +--rw usb
      action on
    +--input
      +--rw rbridge-id?    switchidType

```

Disable USB:

```

module: brocade-ras
  +--rw system

```

```

+--rw usb
  action off
+--input
  +--rw rbridge-id?          switchidType

```

List a USB directory:

```

module: brocade-ras
+--rw system
  +--rw usb
    action dir
    +--input
      +--rw rbridge-id?          switchidType

```

Remove a USB file:

```

module: brocade-ras
+--rw system
  +--rw usb
    action remove
    +--input
      +--rw directory          string
      +--rw file               string
    +--output

```

Generate message for internal RASlog test:

```

module: brocade-ras
+--rw logtest
  +--rw raslog
    action gmsg
    +--input
      +--rw messageID          string
    +--output

```

Generate audit log message for internal audit log test:

```

module: brocade-ras
+--rw auditlog
  action gmsg
  +--input
    +--rw messageID          string
  +--output

```


brocade-ras-ext

Description Provides a data model for managing RASlog-related information.

Top-level containers None

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-common-def
  +--rw show
  |   +--rw defaults
  |   +--rw ras-extensions:support
  |   +--rw ras-extensions:copy-support
  |   +--rw ras-extensions:infra
  |   |   +--rw ras-extensions:process
  |   |   +--rw ras-extensions:environment
  |   +--rw ras-extensions:autoupload
  |   +--rw ras-extensions:logging
  +--rw clear
  |   +--rw ras-extensions:support
  |   +--rw ras-extensions:logging
  +--rw no
  +--rw ip
  +--rw ipv6
  +--rw router
```

RPCs Custom RPCs defined in this module follow.

```
+--x show-raslog
|   +--ro input
|   |   +--ro rbridge-id?          switchid-type
|   |   +--ro number-of-latest-events?  uint32
|   +--ro output
|   |   +--ro show-all-raslog
|   |   |   +--ro rbridge-id?          switchid-type
|   |   |   +--ro number-of-entries?  uint32
|   |   |   +--ro raslog-entries
|   |   |   |   +--ro index?          uint32
|   |   |   |   +--ro message-id?     string
|   |   |   |   +--ro date-and-time-info? string
|   |   |   |   +--ro severity?       enumeration
|   |   |   |   +--ro repeat-count?   uint32
|   |   |   |   +--ro message?        string
|   |   |   |   +--ro message-flag?   enumeration
|   |   |   |   +--ro switch-or-chassis-name? string
|   +--x show-support-save-status
|   |   +--ro input
|   |   |   +--ro rbridge-id?  switchid-type
|   |   +--ro output
|   |   |   +--ro show-support-save-status
|   |   |   |   +--ro rbridge-id?          switchid-type
|   |   |   |   +--ro status?              enumeration
|   |   |   |   +--ro message?             string
|   |   |   |   +--ro percentage-of-completion? uint32
|   +--x show-system-info
|   |   +--ro input
|   |   |   +--ro rbridge-id?  switchid-type
|   |   +--ro output
```

```

+--ro show-system-info
  +--ro rbridge-id?    switchid-type
  +--ro stack-mac?    ietfyang:mac-address

```

Actions Proprietary actions defined in this module follow.

Show support information available for upload:

```

module: brocade-common-def
+--rw show
  +--rw ras-extensions:support
    action ras-extensions:support
      input
      +--ro ras-extensions:rbridge-id          switch-id-type
      output

```

Copy support details:

```

module: brocade-common-def
+--rw show
  +--rw ras-extensions:copy-support
    action ras-extensions:status
      input
      +--ro ras-extensions:rbridge-id          switch-id-type
      output

```

Return system information:

```

module: brocade-common-def
+--rw show
  +--rw ras-extensions:infra
    action ras-extensions:chassis
      input
      +--ro ras-extensions:rbridge-id          switch-id-type
      output
      +--ro chassis-info [rbridge-id]
        +--ro ras-extensions:rbridge-id          switch-id-type
        +--ro ras-extensions:switch-type          uint32
        +--ro ras-extensions:vendor              string
        +--ro ras-extensions:verdor-version        string
        +--ro ras-extensions:supplier-serial-number string
        +--ro ras-extensions:chassis-service-tag   string
        +--ro ras-extensions:bay-id               string
        +--ro ras-extensions:vendor-part-number   string
        +--ro ras-extensions:brocade-part-number   string
        +--ro ras-extensions:max-port             int32
        +--ro ras-extensions:is-ha-enabled         boolean
        +--ro ras-extensions:is-ha-redundant       boolean
        +--ro ras-extensions:is-ha-heartbeat-up    boolean
        +--ro ras-extensions:is-ha-synchronized    boolean
        +--ro ras-extensions:ha-recovery           ha-recovery-type
      +--ro fru
        +--ro ras-extensions:tag                  uint32
        +--ro ras-extensions:port-number          string
        +--ro ras-extensions:serial-number        string
        +--ro ras-extensions:field-replacable     boolean
        +--ro ras-extensions:slot-number          uint32
        +--ro ras-extensions:logical-slot-number  uint32
        +--ro ras-extensions:blade-type-id        uint32
        +--ro ras-extensions:slot-eth-port-cnt    uint32

```

```

    +--ro ras-extensions:manufacturer-date      xs:date
    +--ro ras-extensions:update-date            xs:date
    +--ro ras-extensions:version                string
    +--ro ras-extensions:vendor-equipment-type  fru-type
    +--ro ras-extensions:operational-status
        fru-operational-status
    +--ro ras-extensions:manufacturer            string
    +--ro ras-extensions:vendor                  string
    +--ro ras-extensions:vendor-part-number      string
    +--ro ras-extensions:vendor-serial-number    string

```

Show system processes:

```

module: brocade-common-def
  +--rw show
    +--rw ras-extensions:infra
      +rw ras-extensions:process
        action ras-extensions:info
          input
            +--ro ras-extensions:rbridge-id      switch-id-type
          output

```

List processes by memory usage:

```

module: brocade-common-def
  +--rw show
    +--rw ras-extensions:infra
      +rw ras-extensions:process
        action ras-extensions:memory
          input
            +--rw ras-extensions:rbridge-id      switch-id-type
            +--rw ras-extensions:summary          empty
          output

```

List processes by CPU usage:

```

module: brocade-common-def
  +--rw show
    +--rw ras-extensions:infra
      +rw ras-extensions:process
        action ras-extensions:cpu
          input
            +--rw ras-extensions:rbridge-id      switch-id-type
            +--rw ras-extensions:summary          empty
          output

```

Show fan information:

```

module: brocade-common-def
  +--rw show
    +--rw ras-extensions:infra
      +rw ras-extensions:environment
        action ras-extensions:fan
          input
            +--rw ras-extensions:rbridge-id      switch-id-type
          output

```

Show power information:

```
module: brocade-common-def
  +--rw show
    +--rw ras-extensions:infra
      +rw ras-extensions:environment
        action ras-extensions:power
          input
            +--rw ras-extensions:rbridge-id          switch-id-type
              output
```

Show temperature information:

```
module: brocade-common-def
  +--rw show
    +--rw ras-extensions:infra
      +rw ras-extensions:environment
        action ras-extensions:temp
          input
            +--rw ras-extensions:rbridge-id          switch-id-type
              output
```

Return sensor information:

```
module: brocade-common-def
  +--rw show
    +--rw ras-extensions:infra
      +rw ras-extensions:environment
        action ras-extensions:sensor
          input
            +--rw ras-extensions:rbridge-id          switch-id-type
              output
                +--ro ras-extensions:sensor-info [rbridge-id]
                  +--ro ras-extensions:rbridge-id    switchid-type
                  +--ro ras-extensions:sensor         uint32
                  +--ro ras-extensions:id             uint32
                  +--ro ras-extensions:type           sensor-type
                  +--ro ras-extensions:sub-type       uint32
                  +--ro ras-extensions:status         sensore-status
                  +--ro ras-extensions:current-reading int32
```

Show history information:

```
module: brocade-common-def
  +--rw show
    +--rw ras-extensions:infra
      action ras-extensions:history
        input
          +--rw ras-extensions:rbridge-id          switch-id-type
            output
```

Show the auto-upload configuration:

```
module: brocade-common-def
  +--rw show
    +--rw ras-extensions:autoupload
      action ras-extensions:autoupload
        input
```

```

        +--rw ras-extensions:rbridge-id          switch-id-type
output

```

Show RASlog entries:

```

module: brocade-common-def
+--rw show
+--rw ras-extensions:logging
  action ras-extensions:raslog
    input
      +--rw ras-extensions:rbridge-id          switch-id-type-noall
      +--rw ras-extensions:reverse            empty
      +--rw ras-extensions:message-type       enumeration
      +--rw ras-extensions:attribute          enumeration
      +--rw ras-extensions:blade              string
      +--rw ras-extensions:count              uint16
      +--rw ras-extensions:severity            enumeration
    output

```

Show audit log entries:

```

module: brocade-common-def
+--rw show
+--rw ras-extensions:logging
  action ras-extensions:auditlog
    input
      +--rw ras-extensions:reverse            empty
      +--rw ras-extensions:rbridge-id          switch-id-type
    output

```

Clear support information:

```

module: brocade-common-def
+--rw clear
+--rw ras-extensions:support
  action ras-extensions:support
    input
      +--rw ras-extensions:rbridge-id          switch-id-type
    output

```

Clear RASlog:

```

module: brocade-common-def
+--rw clear
+--rw ras-extensions:logging
  action ras-extensions:raslog
    input
      +--rw ras-extensions:rbridge-id          switch-id-type
      +--rw ras-extensions:message-type       enumeration
    output

```

Clear audit log:

```

module: brocade-common-def
+--rw clear
+--rw ras-extensions:logging
  action ras-extensions:auditlog

```

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```
input
  +--rw ras-extensions:rbridge-id
output
  switch-id-type
```

brocade-rbridge

Description Provides a data model for managing routing bridge IDs.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-rbridge
  +--rw rbridge-id [rbridge-id]
    +--rw rbridge-id                               uint32
    +--ro swbd-number?                             int32
    +--rw interface-nodespecific
      | +--rw ns-vlan?                             int32
      | +--rw ns-ethernet?                         int32
    +--rw ip
      | +--rw ip-policy:prefix-list [name seq-keyword instance]
      | +--rw ip-policy:as-path
      | +--rw ip-policy:community-list
      | +--rw rtm:rtm-config
    +--rw ipv6
      | +--rw ip-forward:route [dest]
    +--rw router
      | +--rw bgp:bgp [vrf-name]
      | +--rw ospf:ospf [vrf]
      | +--rw pim:hide-pim-holder
    +--rw switch-attributes
      | +--rw chassis-name?                        string
      | +--rw host-name?                          string
    +--rw brocade-interface:protocol
      | +--rw vrrp:hide-vrrp-holder
    +--rw brocade-interface:interface
      | +--rw brocade-interface:ve [name]
      | +--rw intf-loopback:loopback [id]
    +--rw arp:system-max
      | +--rw arp:arp?                             uint32
    +--rw arp:arp-entry [arp-ip-address]
      | +--rw arp:arp-ip-address                  inet:ipv4-address
      | +--rw arp:mac-address-value?              mac-access-list:mac-address-type
      | +--rw arp:interfacename?                  enumeration
      | +--rw (interfacetype)?
    +--rw chassis:chassis
      | +--rw chassis:virtual-ip?                  common-def:ipv4-address-prefix-type
      | +--rw chassis:virtual-ipv6?               common-def:ipv6-address-prefix
      | +--rw chassis:oper-address
    +--rw fabric-service:fabric
      | +--rw fabric-service:ecmp
      | +--rw fabric-service:route
      | +--rw fabric-service:port-channel [po-id]
    +--rw brcd-fc-auth:fcsp
      | +--rw brcd-fc-auth:auth
      | +--rw brcd-fc-auth:secpolicy
      | +--rw brcd-fc-auth:defined-policy
      | +--rw brcd-fc-auth:active-policy
    +--rw ip-policy:route-map [name action-rm instance]
      | +--rw ip-policy:name                       common-def:name-string63
      | +--rw ip-policy:action-rm                  action-t
      | +--rw ip-policy:instance                   instance-id-t
      | +--rw ip-policy:content
    +--rw ip-policy:filter-change-update-delay [filter-delay-value]
      | +--rw ip-policy:filter-delay-value         uint32

```

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```

+--rw linecard-management:global-lc-holder
|   +--rw linecard-management:linecard
+--rw brocade-logical-chassis:logical-chassis
|   +--rw brocade-logical-chassis:principal-priority?   uint32
+--rw brcd-sec-services:telnet
|   +--rw brcd-sec-services:server
+--rw brcd-sec-services:ssh
|   +--rw brcd-sec-services:server
+--rw system-monitor:system-monitor
|   +--rw system-monitor:fan
|   +--rw system-monitor:power
|   +--rw system-monitor:temp
|   +--rw system-monitor:cid-card
|   +--rw system-monitor:sfp
|   +--rw system-monitor:compact-flash
|   +--rw system-monitor:MM
|   +--rw system-monitor:LineCard
|   +--rw system-monitor:SFM
+--rw threshold-monitor:threshold-monitor
|   +--rw threshold-monitor:sfp
|   +--rw threshold-monitor:security
|   +--rw threshold-monitor:Cpu
|   +--rw threshold-monitor:Memory
|   +--rw threshold-monitor:interface
```

External None
augmentations

RPCs None

Actions None

brocade-rmon

Description Provides a data model for managing Remote Monitor (RMON). It facilitates configuring RMON events, RMON alarms, RMON Ethernet group statistics collections and collection histories.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-rmon
  +--rw rmon
    +--rw event-entry [event-index]
      | +--rw event-index          event-index-type
      | +--rw event-description?   event-description-type
      | +--rw log?                 empty
      | +--rw event-community?     string
      | +--rw event-owner?         owner-string
    +--rw alarm-entry [alarm-index]
      +--rw alarm-index            alarm-index-type
      +--rw snmp-oid               snmp-oid-type
      +--rw alarm-interval         uint32
      +--rw alarm-sample           alarm-sample-type
      +--rw alarm-rising-threshold uint32
      +--rw alarm-rising-event-index alarm-rising-event-index-type
      +--rw alarm-falling-threshold? uint32
      +--rw alarm-falling-event-index? alarm-falling-event-index-type
      +--rw alarm-owner?           owner-string
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-interface
  +--rw interface
    | +--rw gigabitethernet [name]
    | | +--rw rmon:rmon
    | | | +--rw rmon:collection
    | | | | +--rw rmon:ether-stats-entry [ether-stats-index]
    | | | | | +--rw rmon:ether-stats-index      ether-stats-index-type
    | | | | | +--rw rmon:ether-stats-owner?     owner-string
    | | | | +--rw rmon:history-control-entry [history-control-index]
    | | | | | +--rw rmon:history-control-index
    | | | | | | history-control-index-type
    | | | | +--rw rmon:history-control-buckets-requested?
    | | | | | history-control-buckets-requested-type
    | | | | +--rw rmon:history-control-interval?
    | | | | | history-control-interval-type
    | | | | +--rw rmon:history-control-owner?           owner-string
    | +--rw tengigabitethernet [name]
    | | +--rw rmon:rmon
    | | | +--rw rmon:collection
    | | | | +--rw rmon:ether-stats-entry [ether-stats-index]
    | | | | | +--rw rmon:ether-stats-index      ether-stats-index-type
    | | | | | +--rw rmon:ether-stats-owner?     owner-string
    | | | | +--rw rmon:history-control-entry [history-control-index]
    | | | | | +--rw rmon:history-control-index
    | | | | | | history-control-index-type
    | | | | +--rw rmon:history-control-buckets-requested?
    | | | | | history-control-buckets-requested-type
    | | | | +--rw rmon:history-control-interval?
    | | | | | history-control-interval-type
    | | | | +--rw rmon:history-control-owner?           owner-string
    | +--rw fortygigabitethernet [name]
```

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```

| | +--rw rmon:rmon
| |   +--rw rmon:collection
| |     +--rw rmon:ether-stats-entry [ether-stats-index]
| |       | +--rw rmon:ether-stats-index    ether-stats-index-type
| |       | +--rw rmon:ether-stats-owner?   owner-string
| |     +--rw rmon:history-control-entry [history-control-index]
| |       +--rw rmon:history-control-index
| |         history-control-index-type
| |       +--rw rmon:history-control-buckets-requested?
| |         history-control-buckets-requested-type
| |       +--rw rmon:history-control-interval?
| |         history-control-interval-type
| |       +--rw rmon:history-control-owner?                                owner-string

```

RPCs None

Actions None

brocade-rtm

Description	Provides a data model for IP routes.
Top-level containers	None
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre> module: brocade-common-def +--rw ip +--rw rtm:rtm-config +--rw rtm:router-id? inet:ipv4-address +--rw rtm:load-sharing? uint32 +--rw rtm:route +--rw rtm:next-hop-enable-default? empty +--rw rtm:next-hop-recursion? uint32 +--rw rtm:next-hop [proto] +--rw rtm:proto enumeration +--rw rtm:static-route-nh [static-route-dest static-route-next-hop] +--rw rtm:static-route-dest inet:ipv4-prefix +--rw rtm:static-route-next-hop inet:ipv4-address +--rw rtm:route-attributes +--rw rtm:metric? uint32 +--rw rtm:distance? uint32 +--rw rtm:tag? uint32 +--rw rtm:static-route-oif [static-route-dest static-route-oif-type static-route-oif-name] +--rw rtm:static-route-dest inet:ipv4-prefix +--rw rtm:static-route-oif-type enumeration +--rw rtm:static-route-oif-name string +--rw rtm:route-attributes +--rw rtm:metric? uint32 +--rw rtm:distance? uint32 +--rw rtm:tag? uint32 </pre>
RPCs	None
Actions	None

brocade-sec-services

Description Provides a data model for configuring a Telnet server or a Secure SHell (SSH) server.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-sec-services
  +--rw telnet-sa
  |   +--rw telnet
  |       +--rw server
  |       +--rw shutdown?    empty
  +--rw ssh-sa
  |   +--rw ssh
  |       +--rw server
  |           +--rw shutdown?    empty
  |           +--rw key-exchange [protocol]
  |           +--rw protocol    key-exchange-type

```

External augmentations Nodes that augment other modules and their subtrees follow.

```

module: brocade-common-def
  +--rw show
  |   +--rw brcd-sec-services:telnet
  |       +--rw brcd-sec-services:server
  +--rw brcd-sec-services:ssh
  |   +--rw brcd-sec-services:server

module: brocade-rbridge
  +--rw ssh-group

```

RPCs None

Actions Proprietary actions defined in this module follow.

Display the Telnet server status.

```

module: brocade-common-def
  +--rw show
  |   +--rw brcd-sec-services:telnet
  |       +--rm brcd-sec-services:server
  |           action brcd-sec-services:status
  |           input
  |           output

```

Display the SSH server status.

```

module: brocade-common-def
  +--rw show
  |   +--rw brcd-sec-services:ssh
  |       +--rm brcd-sec-services:server
  |           action brcd-sec-services:status
  |           input
  |           output

```

brocade-sflow

Description Provides a data model for configuring sFlow—an industry standard technology for monitoring high-speed switched networks.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-sflow
  +--rw sflow
  |   +--rw enable?                empty
  |   +--rw collector [collector-ip-address collector-port-number]
  |   |   +--rw collector-ip-address    inet:ip-address
  |   |   +--rw collector-port-number  uint32
  |   +--rw polling-interval?      uint32
  |   +--rw sample-rate?           uint32
  +--rw sflow-profile [profile-name]
      +--rw profile-name            profile-name-type
      +--rw profile-sampling-rate?  uint32
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-interface
  +--rw interface
  |   +--rw gigabitethernet [name]
  |   |   +--rw sflow:sflow
  |   |   |   +--rw sflow:enable?                empty
  |   |   |   +--rw sflow:polling-interval?      uint32
  |   |   |   +--rw sflow:sample-rate?           uint32
  |   |   +--rw tengigabitethernet [name]
  |   |   |   +--rw sflow:sflow
  |   |   |   |   +--rw sflow:enable?                empty
  |   |   |   |   +--rw sflow:polling-interval?      uint32
  |   |   |   |   +--rw sflow:sample-rate?           uint32
  |   |   +--rw fortygigabitethernet [name]
  |   |   |   +--rw sflow:sflow
  |   |   |   |   +--rw sflow:enable?                empty
  |   |   |   |   +--rw sflow:polling-interval?      uint32
  |   |   |   |   +--rw sflow:sample-rate?           uint32
```

RPCs None

Actions None

brocade-snmp

Description Provides a data model for configuring the SNMP Server.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-snmp
  +--rw snmp-server
    +--rw context [context-name]
      | +--rw context-name      string
      | +--rw vrf-name?        string
    +--rw community [community]
      | +--rw community        string
      | +--rw access?          community-access
    +--rw user [username]
      | +--rw username          string
      | +--rw groupname?        string
      | +--rw auth?             enumeration
      | +--rw auth-password?    string
      | +--rw priv?             enumeration
      | +--rw priv-password?    string
      | +--rw encrypted?        empty
    +--rw v3host [hostip username]
      | +--rw hostip            inet:host
      | +--rw username          string
      | +--rw udp-port?         host-port
      | +--rw notifytype?       enumeration
      | +--rw engineid?         string
      | +--rw severity-level?   sev-level
    +--rw host [ip community]
      | +--rw ip                inet:host
      | +--rw version?          host-version
      | +--rw community         string
      | +--rw udp-port?         host-port
      | +--rw severity-level?   sev-level
    +--rw agtconfig
      +--rw contact?            system-contact
      +--rw location?           system-location
      +--rw sys-descr?          system-description

```

External augmentations None

RPCs None

Actions None

brocade-span

Description Provides a data model for managing the Switch Port Analyzer (SPAN) port mirroring feature.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```

module: brocade-span
  +--rw monitor
    +--rw session [session-number]
      +--rw session-number      session-type
      +--rw description?       string
      +--rw span-command
        +--rw source?          enumeration
        +--rw src-tengigabitethernet? enumeration
        +--rw src-tengigabitethernet-val? span-if-type
        +--rw destination?     enumeration
        +--rw dest-tengigabitethernet? enumeration
        +--rw dest-tengigabitethernet-val? span-if-type
        +--rw dest-vlan-val?    interface:vlan-type
        +--rw direction?       enumeration

```

External augmentations Nodes that augment other modules and their subtrees follow.

```

module: /interface:interface-vlan/interface:interface/interface:vlan
  +--rw remote-span

```

RPCs None

Actions None

brocade-system

Description	Provides a data model for system-related information. It provides a custom RPC for returning the system up-time.
Top-level containers	None
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre> module: brocade-system +rw system </pre>
RPCs	<p>Custom RPCs defined in this module follow.</p> <pre> +---x get-system-uptime +--ro input +--ro rbridge-id? common-def:rbridge-id-type +--ro output +--ro show-system-uptime [rbridge-id] +--ro rbridge-id common-def:rbridge-id-type +--ro days? common-def:time-interval-day +--ro hours? common-def:time-interval-hour +--ro minutes? common-def:time-interval-minute +--ro seconds? common-def:time-interval-sec </pre>
Actions	<p>Proprietary actions defined in this module follow.</p> <pre> module: brocade-system +--rw system +--ro input +--ro output </pre>

brocade-system-monitor

Description Provides a data model for configuring monitoring thresholds for field-replaceable units (FRUs) and for configuring Fabric Watch e-mail alerts. When a threshold is breached or when an FRU is inserted or removed, a RASlog message is generated. Using this module, you can configure the marginal threshold and down threshold values for the following FRUs:

- Fans
- Power supplies
- Chassis ID (CID) card
- Each Small Form-Factor Pluggable (SFP) media interface
- Compact flash
- Management Module (MM)
- Line cards
- Switch Fabric Module (SFM)

Top-level containers

Top-level nodes and their subtree hierarchies follow.

```

module: brocade-system-monitor
  +--rw system-monitor
  |   +--rw fan
  |   |   +--rw threshold
  |   |   |   +--rw marginal-threshold?  uint32
  |   |   |   +--rw down-threshold?      uint32
  |   |   +--rw alert
  |   |   |   +--rw state?      supported-state
  |   |   |   +--rw action?     supported-actions
  |   +--rw power
  |   |   +--rw threshold
  |   |   |   +--rw marginal-threshold?  uint32
  |   |   |   +--rw down-threshold?      uint32
  |   |   +--rw alert
  |   |   |   +--rw state?      supported-state
  |   |   |   +--rw action?     supported-actions
  |   +--rw temp
  |   |   +--rw threshold
  |   |   |   +--rw marginal-threshold?  uint32
  |   |   |   +--rw down-threshold?      uint32
  |   +--rw cid-card
  |   |   +--rw threshold
  |   |   |   +--rw marginal-threshold?  uint32
  |   |   |   +--rw down-threshold?      uint32
  |   |   +--rw alert
  |   |   |   +--rw state?      supported-state
  |   |   |   +--rw action?     supported-actions
  |   +--rw sfp
  |   |   +--rw alert
  |   |   |   +--rw state?      sfp-supported-state
  |   |   |   +--rw action?     supported-actions
  |   +--rw compact-flash
  |   |   +--rw threshold
  |   |   |   +--rw marginal-threshold?  uint32
  |   |   |   +--rw down-threshold?      uint32
  |   +--rw MM
  |   |   +--rw threshold

```

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```

| |      +--rw marginal-threshold?  uint32
| |      +--rw down-threshold?      uint32
| +--rw LineCard
| |      +--rw threshold
| | |      +--rw marginal-threshold?  uint32
| | |      +--rw down-threshold?      uint32
| |      +--rw alert
| |      +--rw state?                supported-state
| |      +--rw action?              supported-actions
| +--rw SFM
| |      +--rw threshold
| | |      +--rw marginal-threshold?  uint32
| | |      +--rw down-threshold?      uint32
+--rw system-monitor-mail
  +--rw fru
  |   +--rw enable?                  empty
  |   +--rw email-list [email]
  |   +--rw email                  string
  +--rw sfp
  |   +--rw enable?                  empty
  |   +--rw email-list [email]
  |   +--rw email                  string
  +--rw security
  |   +--rw enable?                  empty
  |   +--rw email-list [email]
  |   +--rw email                  string
  +--rw interface
  |   +--rw enable?                  empty
  |   +--rw email-list [email]
  |   +--rw email                  string
  +--rw relay [host-ip]
  |   +--rw host-ip                  inet:host
  |   +--rw domain-name?            string

```

External augmentations Nodes that augment other modules and their subtrees follow.

```

module: brocade-rbridge
  +--rw system-monitor

```

RPCs None

Actions None

brocade-system-monitor-ext

Description Provides a data model for returning system monitor data.

Top-level containers None

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-common-def
  +--rw show
  |   +--rw system-monitor-extensions:system
```

RPCs Custom RPCs defined in this module follow.

```
+---x show-system-monitor
  +--ro input
  |   +--ro rbridge-id?    common-def:rbridge-id-all-type
  +--ro output
    +--ro switch-status
      +--ro rbridge-id-out?    common-def:rbridge-id-type
      +--ro switch-name?      string
      +--ro switch-ip?        inet:ip-address
      +--ro report-time?      ietfyang:date-and-time
      +--ro switch-state?     system-monitor-health-state-enum
      +--ro switch-state-reason? string
      +--ro component-status
        |   +--ro component-name?    string
        |   +--ro component-state?    system-monitor-health-state-enum
      +--ro port-status
        +--ro port-area?    uint32
        +--ro port-name?    string
        +--ro port-state?    system-monitor-port-state-enum
```

Actions Proprietary actions defined in this module follow.

```
module: brocade-common-def
  +--rw show
    +--rw system-monitor-extensions:system
      action system-monitor-extensions:monitor
        input
          +--ro system-monitor-extensions:rbridge-id
            common-def:rbridge-id-all-type
        output
          +--ro system-monitor-extensions:switch-status
            +--ro system-monitor-extensions:rbridge-id-out
              common-def:rbridge-id-type
            +--ro system-monitor-extensions:switch-name      string
            +--ro system-monitor-extensions:switch-ip        inet:ip-address
            +--ro system-monitor-extensions:report-time      ietfyang:date-and-time
            +--ro system-monitor-extensions:switch-state     system-monitor-health-state-enum
            +--ro system-monitor-extensions:component-status
              +--ro system-monitor-extensions:component-name    string
              +--ro system-monitor-extensions:component-state    system-monitor-health-state-enum
            +--ro system-monitor-extensions:faulty-port
              +--ro system-monitor-extensions:port-name          string
```

brocade-terminal

Description	Provides a data model for managing CLI session features such as timeout.
Top-level containers	<p>Top-level nodes and their subtree hierarchies follow.</p> <pre>module: brocade-terminal +--rw terminal-cfg +--rw line [sessionid] +--rw sessionid terminal-type +--rw exec-timeout? uint32</pre>
External augmentations	None
RPCs	None
Actions	None

brocade-threshold-monitor

Description Provides a data model monitoring the following components by alerting the user when thresholds are exceeded:

- CPU usage
- 1, 10, and 40 Gigabit Ethernet interfaces
- Memory usage
- Security parameters, including Telnet violations and login violations

Top-level containers

Top-level nodes and their subtree hierarchies follow.

```
module: brocade-threshold-monitor
  +--rw threshold-monitor-hidden
    +--rw threshold-monitor
      +--rw sfp
        | +--rw apply?      supported-config
        | +--rw pause?     empty
        | +--rw policy [policy_name]
        |   +--rw policy_name string
        |   +--rw area [type area_value]
        |     +--rw type      enumeration
        |     +--rw area_value enumeration
        |     +--rw threshold
        |       | +--rw high-threshold? int32
        |       | +--rw low-threshold?  int32
        |       | +--rw buffer?         int32
        |       +--rw alert
        |         +--rw above
        |         | +--rw above-highthresh-action? supported-actions
        |         +--rw below
        |         | +--rw below-highthresh-action? supported-actions
        |         | +--rw below-lowthresh-action?  supported-actions
      +--rw security
        | +--rw apply?      supported-config
        | +--rw pause?     empty
        | +--rw policy [sec_policy_name]
        |   +--rw sec_policy_name string
        |   +--rw area [sec_area_value]
        |     +--rw sec_area_value enumeration
        |     +--rw timebase?      supported-timebase
        |     +--rw threshold
        |       | +--rw sec-high-threshold? int32
        |       | +--rw sec-low-threshold?  int32
        |       | +--rw sec-buffer?         int32
        |       +--rw alert
        |         +--rw above
        |         | +--rw sec-above-highthresh-action? supported-actions
        |         +--rw below
        |         | +--rw sec-below-highthresh-action? supported-actions
        |         | +--rw sec-below-lowthresh-action?  supported-actions
      +--rw Cpu
        | +--rw poll?      uint32
        | +--rw retry?     uint32
        | +--rw limit?     uint32
        | +--rw actions?   enumeration
      +--rw Memory
```

```

|   +-rw poll?          uint32
|   +-rw retry?         uint32
|   +-rw limit?         uint32
|   +-rw high-limit?    uint32
|   +-rw low-limit?     uint32
|   +-rw actions?       enumeration
+-rw interface
  +-rw apply?           supported-config
  +-rw pause?          empty
  +-rw policy [policy_name]
    +-rw policy_name    string
    +-rw area [type area_value]
      +-rw type          enumeration
      +-rw area_value    enumeration
      +-rw threshold
        +-rw timebase_value? supported-timebase
        +-rw high-threshold? int32
        +-rw low-threshold?  int32
        +-rw buffer?        int32
      +-rw alert
        +-rw above
          +-rw above-highthresh-action? int-supported-actions
          +-rw above-lowthresh-action?  supported-actions
        +-rw below
          +-rw below-highthresh-action? supported-actions
          +-rw below-lowthresh-action?  supported-actions

```

External augmentations

Nodes that augment other modules and their subtrees follow.

```

module: brocade-rbridge
  +-rw rbridge-id [rbridge-id]
    +-rw rbridge-id          uint32
  +-rw interface-nodespecific
    |   +-rw ns-vlan?        int32
    |   +-rw ns-ethernet?    int32
  +-rw ip
  +-rw router
  +-rw threshold-monitor:threshold-monitor
    +-rw threshold-monitor:sfp
      |   +-rw threshold-monitor:apply? supported-config
      |   +-rw threshold-monitor:pause? empty
      |   +-rw threshold-monitor:policy [policy_name]
      |     +-rw threshold-monitor:policy_name string
      |     +-rw threshold-monitor:area [type area_value]
      |       +-rw threshold-monitor:type          enumeration
      |       +-rw threshold-monitor:area_value    enumeration
      |       +-rw threshold-monitor:threshold
      |         +-rw threshold-monitor:high-threshold? int32
      |         +-rw threshold-monitor:low-threshold?  int32
      |         +-rw threshold-monitor:buffer?        int32
      |       +-rw threshold-monitor:alert
      |         +-rw threshold-monitor:above
      |           +-rw threshold-monitor:above-highthresh-action? supported-actions
      |         +-rw threshold-monitor:below
      |           +-rw threshold-monitor:below-highthresh-action? supported-actions
      |           +-rw threshold-monitor:below-lowthresh-action?  supported-actions
    +-rw threshold-monitor:security

```

```

|   +-rw threshold-monitor:apply?      supported-config
|   +-rw threshold-monitor:policy [sec_policy_name]
|       +-rw threshold-monitor:sec_policy_name      string
|       +-rw threshold-monitor:area [sec_area_value]
|           +-rw threshold-monitor:sec_area_value      enumeration
|           +-rw threshold-monitor:timebase?          supported-timebase
|           +-rw threshold-monitor:threshold
|               +-rw threshold-monitor:sec-high-threshold?      int32
|               +-rw threshold-monitor:sec-low-threshold?      int32
|               +-rw threshold-monitor:sec-buffer?            int32
|           +-rw threshold-monitor:alert
|               +-rw threshold-monitor:above
|                   +-rw threshold-monitor:sec-above-highthresh-action?
|                       supported-actions
|               +-rw threshold-monitor:below
|                   +-rw threshold-monitor:sec-below-highthresh-action?
|                       supported-actions
|               +-rw threshold-monitor:sec-below-lowthresh-action?
|                       supported-actions
+-rw threshold-monitor:Cpu
|   +-rw threshold-monitor:poll?      uint32
|   +-rw threshold-monitor:retry?      uint32
|   +-rw threshold-monitor:limit?      uint32
|   +-rw threshold-monitor:actions?    enumeration
+-rw threshold-monitor:Memory
|   +-rw threshold-monitor:poll?      uint32
|   +-rw threshold-monitor:retry?      uint32
|   +-rw threshold-monitor:limit?      uint32
|   +-rw threshold-monitor:high-limit? uint32
|   +-rw threshold-monitor:low-limit?  uint32
|   +-rw threshold-monitor:actions?    enumeration
+-rw threshold-monitor:interface
|   +-rw threshold-monitor:apply?      supported-config
|   +-rw threshold-monitor:pause?      empty
|   +-rw threshold-monitor:policy [policy_name]
|       +-rw threshold-monitor:policy_name      string
|       +-rw threshold-monitor:area [type area_value]
|           +-rw threshold-monitor:type      enumeration
|           +-rw threshold-monitor:area_value      enumeration
|           +-rw threshold-monitor:threshold
|               +-rw threshold-monitor:timebase_value?      supported-timebase
|               +-rw threshold-monitor:high-threshold?      int32
|               +-rw threshold-monitor:low-threshold?      int32
|               +-rw threshold-monitor:buffer?            int32
|           +-rw threshold-monitor:alert
|               +-rw threshold-monitor:above
|                   +-rw threshold-monitor:above-highthresh-action?
|                       int-supported-actions
|                   +-rw threshold-monitor:above-lowthresh-action?
|                       supported-actions
|               +-rw threshold-monitor:below
|                   +-rw threshold-monitor:below-highthresh-action?
|                       supported-actions
|                   +-rw threshold-monitor:below-lowthresh-action?
|                       supported-actions

```

RPCs None

Actions None

brocade-threshold-monitor-ext

Description	Provides a data model for returning threshold monitor data.
Top-level containers	None
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre> module: brocade-common-def +--rw show +--rw defaults +--rw threshold-monitor-extensions:threshold +--rw threshold-monitor-extensions:threshold </pre>
RPCs	None
Actions	<p>Proprietary actions defined in this module follow.</p> <pre> module: brocade-common-def +--rw show +--rw threshold-monitor-extensions:threshold action threshold-monitor-extensions:monitor input +--rw threshold-monitor-extensions:interface string +--rw threshold-monitor-extensions:area threshold-monitor-area output +--ro threshold-monitor-extensions:threshold-monitor-interface +--ro threshold-monitor-extensions:interface-name string +--ro threshold-monitor-extensions:area threshold-monitor-area +--ro threshold-monitor-extensions:value uint32 +--ro threshold-monitor-extensions:status threshold-monitor-state-enum +--ro threshold-monitor-extensions:monitor-status threshold-monitor-pause-enum </pre>

Show default threshold and alert values for SFP:

```

module: brocade-common-def
  +--rw show
    +--rw defaults
      +--rw threshold-monitor-extensions:threshold
        action threshold-monitor-extensions:sfp
          input
            +--rw threshold-monitor-extensions:type sfp-type

```

Show default threshold and alert values for interface:

```

module: brocade-common-def
  +--rw show
    +--rw defaults
      +--rw threshold-monitor-extensions:threshold
        action threshold-monitor-extensions:interface
          input
            +--rw threshold-monitor-extensions:type enumeration

```


Display default threshold and alert values for security:

```
module: brocade-common-def
  +--rw show
    +--rw defaults
      +--rw threshold-monitor-extensions:threshold
      action threshold-monitor-extensions:security
```

brocade-trilloam

Description Provides a data model for managing commands that provide Operations, Administration, and Maintenance support (OAM) of Transparent Interconnection of Lots of Links (TRILL). Specifically, it provides custom RPCs for initiating a Layer 2 traceroute and for returning the traceroute results.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-trilloam
  +--rw trilloam
  +--ro l2traceroute
  +--ro input
```

External augmentations None

RPCs Custom RPCs defined in this module follow.

```
+---x l2traceroute
|   +--ro input
|   |   +--ro src-mac          mac:mac-address-type
|   |   +--ro dest-mac         mac:mac-address-type
|   |   +--ro vlan-id          interface:vlan-type
|   |   +--ro rbridge-id        common-def:rbridge-id-type
|   |   +--ro (protocolType)?
|   |   |   +--:(IP)
|   |   |   |   +--ro src-ip          inet:ipv4-address
|   |   |   |   +--ro dest-ip         inet:ipv4-address
|   |   |   |   +--ro l4protocol       enumeration
|   |   |   |   +--ro l4-src-port      inet:port-number
|   |   |   |   +--ro l4-dest-port     inet:port-number
|   |   |   +--:(FCoE)
|   |   +--ro output
|   |   |   +--ro session-id      uint32
|   |   |   +--ro reason          string
+---x l2traceroute-result
  +--ro input
  |   +--ro session-id      uint32
  +--ro output
  |   +--ro l2-hop-results
  |   |   +--ro l2-hop
  |   |   |   +--ro rbridge-id?      common-def:rbridge-id-type
  |   |   |   +--ro ingress
  |   |   |   |   +--ro interface-type?  enumeration
  |   |   |   |   +--ro interface-name?  union
  |   |   |   +--ro egress
  |   |   |   |   +--ro interface-type?  enumeration
  |   |   |   |   +--ro interface-name?  union
  |   |   |   +--ro roundtriptime?      common-def:time-interval-musec
  +--ro l2traceroutedone      boolean
  +--ro reason                  string
```

Actions Proprietary actions defined in this module follow.

```
+--rw trilloam
  +--rw action l2traceroute
```

brocade-udld

Description This management module is an instrumentation to manage UDLD protocol configuration.

Glossary of the terms used:

- PDU - Protocol Data Unit. In the context of this module PDU refers to Layer2 frame transmitted or received by UDLD protocol.
- UDLD - UniDirectional Link Detection

Top-level containers None

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-protocol
  +--rw udld
```

```
module: brocade-gigabitethernet
  +--rw udld-intf-configs
```

```
module: brocade-tengigabitethernet
  +--rw udld-intf-configs
```

```
module: brocade-fortygigabitethernet
  +--rw udld-intf-configs
```

RPCs None

Actions None

brocade-vcs

Description Provides a data model for managing the Brocade VCS fabric.

VCS fabric refers to the ability of a group of physical Ethernet switches, interconnected in an arbitrary way using the regular front-end data ports, to appear as one unified and transparent Ethernet switching service to the external network. The network that connects these individual switches is referred to as the *fabric*. The group of physical Ethernet switches in the fabric is referred to as the *cluster*.

The cluster behaves like a logical switch to the external network.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-vcs
  +--ro vcsmode
  |   +--ro vcs-mode          boolean
  |   +--ro vcs-cluster-mode  boolean
  +--ro local-node
  |   +--ro swbd-number      uint32
  +--rw vcs
  |   +--rw virtual
  |   |   +--rw ip
  |   |   |   +--rw address?  common-def:ipv4-address-prefix-type
```

External augmentations None

RPCs Custom RPCs defined in this module follow.

```
+---x get-last-config-update-time
|   +--ro output
|   |   +--ro last-config-update-time?  uint64
+---x show-vcs
|   +--ro output
|   |   +--ro principal-switch-wnn?      string
|   |   +--ro co-ordinator-wnn?          string
|   |   +--ro vcs-cluster-type-info?     vcs-cluster-type
|   |   +--ro vcs-guid?                   string
|   |   +--ro virtual-ip-address?        string
|   |   +--ro total-nodes-in-cluster?    uint16
|   |   +--ro nodes-disconnected-from-cluster?  uint16
|   |   +--ro cluster-generic-status?    string
|   |   +--ro cluster-specific-status?   string
|   |   +--ro vcs-nodes
|   |   |   +--ro vcs-node-info
|   |   |   |   +--ro node-num?          uint16
|   |   |   |   +--ro node-serial-num?   string
|   |   |   |   +--ro node-condition?    string
|   |   |   |   +--ro node-status?       string
|   |   |   |   +--ro node-hw-sync-state? node-hw-sync-state-type
|   |   |   |   +--ro node-vcs-mode?     string
|   |   |   |   +--ro node-vcs-id?       uint16
|   |   |   |   +--ro node-rbridge-id?   uint16
|   |   |   |   +--ro node-is-principal?  boolean
|   |   |   |   +--ro co-ordinator?      boolean
|   |   |   |   +--ro node-switch-mac?   yang:mac-address
|   |   |   |   +--ro node-switch-wnn?   string
|   |   |   |   +--ro switch-fcf-mac?    yang:mac-address
```

```

|         +--ro node-internal-ip-address?      inet:ipv4-address
|         +--ro node-public-ip-addresses
|         |   +--ro node-public-ip-address?    inet:ipv4-address
|         +--ro node-public-ipv6-addresses
|         |   +--ro node-public-ipv6-address?  inet:ipv6-address
|         +--ro firmware-version?             string
|         +--ro node-swbd-number?             int32
|         +--ro node-switchname?             string
|         +--ro node-state?                   node-state-type
+---x get-vcs-details
|   +--ro output
|   +--ro vcs-details
|   +--ro principal-switch-wnn?              string
|   +--ro co-ordinator-wnn?                  string
|   +--ro local-switch-wnn?                  string
|   +--ro node-vcs-mode?                     boolean
|   +--ro node-vcs-type?                     vcs-cluster-type
|   +--ro node-vcs-id?                       uint32
+---x vcs-rbridge-context
|   +--ro input
|   +--ro rbridge-id?                        uint16
+---x no-vcs-rbridge-context
+---x get-last-config-update-time-for-xpaths
|   +--ro input
|   |   +--ro xpath-strings [xpath-string]
|   |   +--ro xpath-string  string
|   +--ro output
|   +--ro last-config-update-time-for-xpaths [xpath-string]
|   +--ro xpath-string          string
|   +--ro last-config-update-time? uint64

```

Actions None

brocade-vlan

Description Provides a data model for managing VLAN classifiers.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-vlan
  +--rw vlan
    +--rw classifier
      | +--rw rule [ruleid]
      | | +--rw ruleid      uint32
      | | +--rw (class-type)?
      | | | +--:(mac)
      | | | | +--rw mac
      | | | | | +--rw address?      vmac-address-type
      | | | +--:(proto)
      | | | +--rw proto
      | | | | +--rw proto-val?      union
      | | | | +--rw encap?          enumeration
      | +--rw group [groupid oper rule-name ruleid]
      | | +--rw groupid      uint32
      | | +--rw oper         rule-opp-type
      | | +--rw rule-name    rule-name-type
      | | +--rw ruleid      uint32
    +--rw dot1q
      +--rw tag
        +--rw native?      empty
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-interface
  +--rw interface
    +--rw gigabitethernet [name]
      +--rw brocade-vlan:vlan
        +--rw brocade-vlan:classifier
          +--rw brocade-vlan:activate
            +--rw brocade-vlan:group [groupid vlan-name vlan]
              +--rw brocade-vlan:groupid      uint32
              +--rw brocade-vlan:vlan-name    enumeration
              +--rw brocade-vlan:vlan         interface:vlan-type

module: brocade-interface
  +--rw interface
    +--rw tengigabitethernet [name]
      +--rw brocade-vlan:vlan
        +--rw brocade-vlan:classifier
          +--rw brocade-vlan:activate
            +--rw brocade-vlan:group [groupid vlan-name vlan]
              +--rw brocade-vlan:groupid      uint32
              +--rw brocade-vlan:vlan-name    enumeration
              +--rw brocade-vlan:vlan         interface:vlan-type

module: brocade-interface
  +--rw interface
    +--rw fortygigabitethernet [name]
      +--rw brocade-vlan:vlan
        +--rw brocade-vlan:classifier
          +--rw brocade-vlan:activate
            +--rw brocade-vlan:group [groupid vlan-name vlan]
```

```

        +--rw brocade-vlan:groupid      uint32
        +--rw brocade-vlan:vlan-name    enumeration
        +--rw brocade-vlan:vlan         interface:vlan-type

module: brocade-interface
  +--rw interface
    +--rw port-channel [name]
      +--rw brocade-vlan:vlan
        +--rw brocade-vlan:classifier
          +--rw brocade-vlan:activate
            +--rw brocade-vlan:group [groupid vlan-name vlan]
              +--rw brocade-vlan:groupid      uint32
              +--rw brocade-vlan:vlan-name    enumeration
              +--rw brocade-vlan:vlan         interface:vlan-type

```

RPCs None

Actions None

brocade-vrf

Description	This module manages Virtual Routing and Forwarding (VRF).		
Top-level containers	None		
External augmentations	Nodes that augment other modules and their subtrees follow.		
	<pre> module: brocade-rbridge +--rw rbridge-id [rbridge-id] +--rw rbridge-id uint32 +--rw vrf:vrf [vrf-name] +--rw vrf:vrf-name common-def:vrf-name +--rw vrf:route-distinguisher? rd-type +--rw vrf:address-family +--rw vrf:ipv4 [max-route] +--rw vrf:max-route uint32 +--rw rtm:ip +--rw rtm:route +--rw rtm:next-hop-enable-default? empty +--rw rtm:next-hop-recursion? uint32 +--rw rtm:next-hop [proto] +--rw rtm:proto enumeration +--rw rtm:static-route-nh [static-route-dest static-route-next-hop] +--rw rtm:static-route-dest inet:ipv4-prefix +--rw rtm:static-route-next-hop inet:ipv4-address +--rw rtm:route-attributes +--rw rtm:metric? uint32 +--rw rtm:distance? uint32 +--rw rtm:tag? uint32 +--rw rtm:static-route-nh-vrf [static-route-dest next-hop-vrf static-route-next-hop] +--rw rtm:static-route-dest inet:ipv4-prefix +--rw rtm:next-hop-vrf string +--rw rtm:static-route-next-hop inet:ipv4-address +--rw rtm:static-route-oif [static-route-dest static-route-oif-type static-route-oif-name] +--rw rtm:static-route-dest inet:ipv4-prefix +--rw rtm:static-route-oif-type enumeration +--rw rtm:static-route-oif-name string +--rw rtm:route-attributes +--rw rtm:metric? uint32 +--rw rtm:distance? uint32 +--rw rtm:tag? uint32 +--rw arp:arp-entry [arp-ip-address] +--rw arp:arp-ip-address inet:ipv4-address +--rw arp:mac-address-value? mac-access-list:mac-address-type +--rw arp:interfacename? enumeration +--rw (interfacetype)? +--:(GigabitEthernet) +--rw arp:GigabitEthernet? interface:interface-type +--:(TenGigabitEthernet) +--rw arp:TenGigabitEthernet? interface:interface-type +--:(FortyGigabitEthernet) +--rw arp:FortyGigabitEthernet? interface:interface-type +--:(Ve) </pre>		


```
| | +--rw arp:Ve? interface:vlan-type
| +--rw vrf:ip
| +--rw vrf:vrf-router-id? inet:ipv4-address
```

RPCs None

Actions None

brocade-vrrp

Description	Provides a data model for configuring the Virtual Router Redundancy Protocol (VRRP). Use this module to enable VRRP globally, and to configure and enable VRRP on specific interfaces to share workload and provide router redundancy.
Top-level containers	<p>Top-level nodes and their subtree hierarchies follow.</p> <pre> module: brocade-vrrp +--rw protocol-vrrp +--rw protocol </pre>
External augmentations	<p>Nodes that augment other modules and their subtrees follow.</p> <pre> module: brocade-rbridge +--rw rbridge-id [rbridge-id] +--rw brocade-interface:protocol +--rw vrrp:hide-vrrp-holder +--rw vrrp:vrrp? empty +--rw brocade-interface:interface +--rw brocade-interface:ve [name] +--rw brocade-interface:name vlan-type +--rw vrrp:vrrp [vrid] +--rw vrrp:vrid vrid-type +--rw vrrp:virtual-ip [virtual-ipaddr] +--rw vrrp:virtual-ipaddr inet:ipv4-address +--rw vrrp:track +--rw vrrp:interface [interface-type interface-name] +--rw vrrp:interface-type track-iftyp +--rw vrrp:interface-name track-ifname +--rw vrrp:track-priority? uint8 +--rw vrrp:advertisement-interval? uint32 +--rw vrrp:enable? empty +--rw vrrp:hold-time? uint32 +--rw vrrp:preempt-mode? empty +--rw vrrp:priority? uint8 +--rw vrrp:description? string +--rw vrrp:vrrpe [vrid] +--rw vrrp:vrid vrid-type +--rw vrrp:virtual-ip [virtual-ipaddr] +--rw vrrp:virtual-ipaddr inet:ipv4-address +--rw vrrp:track +--rw vrrp:interface [interface-type interface-name] +--rw vrrp:interface-type track-iftyp +--rw vrrp:interface-name track-ifname +--rw vrrp:track-priority? uint8 +--rw vrrp:advertisement-interval? uint32 +--rw vrrp:enable? empty +--rw vrrp:hold-time? uint32 +--rw vrrp:preempt-mode? empty +--rw vrrp:priority? uint8 +--rw vrrp:description? string +--rw vrrp:advertise-backup? empty +--rw vrrp:vrrpe-garp-timer? uint32 +--rw vrrp:backup-advertisement-interval? uint32 +--rw vrrp:short-path-forwarding? empty </pre> <pre> module: brocade-interface +--rw interface </pre>

```

+--rw gigabitethernet [name]
+--rw vrrp:vrrp [vrid]
|   +--rw vrrp:vrid                                vrid-type
|   +--rw vrrp:virtual-ip [virtual-ipaddr]
|   |   +--rw vrrp:virtual-ipaddr    inet:ipv4-address
|   +--rw vrrp:track
|   |   +--rw vrrp:interface [interface-type interface-name]
|   |   |   +--rw vrrp:interface-type    track-ifttype
|   |   |   +--rw vrrp:interface-name    track-ifname
|   |   |   +--rw vrrp:track-priority?   uint8
|   +--rw vrrp:advertisement-interval?   uint32
|   +--rw vrrp:enable?                    empty
|   +--rw vrrp:hold-time?                  uint32
|   +--rw vrrp:preempt-mode?               empty
|   +--rw vrrp:priority?                   uint8
|   +--rw vrrp:description?                string
+--rw vrrp:vrrpe [vrid]
|   +--rw vrrp:vrid                                vrid-type
|   +--rw vrrp:virtual-ip [virtual-ipaddr]
|   |   +--rw vrrp:virtual-ipaddr    inet:ipv4-address
|   +--rw vrrp:track
|   |   +--rw vrrp:interface [interface-type interface-name]
|   |   |   +--rw vrrp:interface-type    track-ifttype
|   |   |   +--rw vrrp:interface-name    track-ifname
|   |   |   +--rw vrrp:track-priority?   uint8
|   +--rw vrrp:advertisement-interval?   uint32
|   +--rw vrrp:enable?                    empty
|   +--rw vrrp:hold-time?                  uint32
|   +--rw vrrp:preempt-mode?               empty
|   +--rw vrrp:priority?                   uint8
|   +--rw vrrp:description?                string
|   +--rw vrrp:advertise-backup?           empty
|   +--rw vrrp:vrrpe-garp-timer?          uint32
|   +--rw vrrp:backup-advertisement-interval? uint32
|   +--rw vrrp:short-path-forwarding?     empty

module: brocade-interface
+--rw interface
+--rw tengigabitethernet [name]
+--rw vrrp:vrrp [vrid]
|   +--rw vrrp:vrid                                vrid-type
|   +--rw vrrp:virtual-ip [virtual-ipaddr]
|   |   +--rw vrrp:virtual-ipaddr    inet:ipv4-address
|   +--rw vrrp:track
|   |   +--rw vrrp:interface [interface-type interface-name]
|   |   |   +--rw vrrp:interface-type    track-ifttype
|   |   |   +--rw vrrp:interface-name    track-ifname
|   |   |   +--rw vrrp:track-priority?   uint8
|   +--rw vrrp:advertisement-interval?   uint32
|   +--rw vrrp:enable?                    empty
|   +--rw vrrp:hold-time?                  uint32
|   +--rw vrrp:preempt-mode?               empty
|   +--rw vrrp:priority?                   uint8
|   +--rw vrrp:description?                string
+--rw vrrp:vrrpe [vrid]
|   +--rw vrrp:vrid                                vrid-type
|   +--rw vrrp:virtual-ip [virtual-ipaddr]
|   |   +--rw vrrp:virtual-ipaddr    inet:ipv4-address
|   +--rw vrrp:track
|   |   +--rw vrrp:interface [interface-type interface-name]

```

```

|      +--rw vrrp:interface-type      track-iftype
|      +--rw vrrp:interface-name      track-ifname
|      +--rw vrrp:track-priority?     uint8
+--rw vrrp:advertisement-interval?    uint32
+--rw vrrp:enable?                    empty
+--rw vrrp:hold-time?                 uint32
+--rw vrrp:preempt-mode?              empty
+--rw vrrp:priority?                 uint8
+--rw vrrp:description?              string
+--rw vrrp:advertise-backup?          empty
+--rw vrrp:vrrpe-garp-timer?          uint32
+--rw vrrp:backup-advertisement-interval? uint32
+--rw vrrp:short-path-forwarding?     empty

module: brocade-interface
+--rw interface
+--rw fortygigabitethernet [name]
+--rw vrrp:vrrp [vrid]
| +--rw vrrp:vrid                      vrid-type
| +--rw vrrp:virtual-ip [virtual-ipaddr]
| | +--rw vrrp:virtual-ipaddr          inet:ipv4-address
| +--rw vrrp:track
| | +--rw vrrp:interface [interface-type interface-name]
| | | +--rw vrrp:interface-type        track-iftype
| | | +--rw vrrp:interface-name        track-ifname
| | | +--rw vrrp:track-priority?       uint8
| | +--rw vrrp:advertisement-interval? uint32
| | +--rw vrrp:enable?                 empty
| | +--rw vrrp:hold-time?              uint32
| | +--rw vrrp:preempt-mode?           empty
| | +--rw vrrp:priority?               uint8
| | +--rw vrrp:description?            string
+--rw vrrp:vrrpe [vrid]
| +--rw vrrp:vrid                      vrid-type
| +--rw vrrp:virtual-ip [virtual-ipaddr]
| | +--rw vrrp:virtual-ipaddr          inet:ipv4-address
| +--rw vrrp:track
| | +--rw vrrp:interface [interface-type interface-name]
| | | +--rw vrrp:interface-type        track-iftype
| | | +--rw vrrp:interface-name        track-ifname
| | | +--rw vrrp:track-priority?       uint8
| | +--rw vrrp:advertisement-interval? uint32
| | +--rw vrrp:enable?                 empty
| | +--rw vrrp:hold-time?              uint32
| | +--rw vrrp:preempt-mode?           empty
| | +--rw vrrp:priority?               uint8
| | +--rw vrrp:description?            string
| | +--rw vrrp:advertise-backup?        empty
| | +--rw vrrp:vrrpe-garp-timer?        uint32
| | +--rw vrrp:backup-advertisement-interval? uint32
| | +--rw vrrp:short-path-forwarding?   empty

module: brocade-interface
+--rw interface
+--rw port-channel [name]
+--rw vrrp:hide-vrrp-holer
+--rw vrrp:vrrp [vrid]
| +--rw vrrp:vrid                      vrid-type
| +--rw vrrp:virtual-ip [virtual-ipaddr]
| | +--rw vrrp:virtual-ipaddr          inet:ipv4-address

```

```

|   +--rw vrrp:track
|   |   +--rw vrrp:interface [interface-type interface-name]
|   |   |   +--rw vrrp:interface-type      track-itype
|   |   |   +--rw vrrp:interface-name      track-ifname
|   |   |   +--rw vrrp:track-priority?     uint8
|   +--rw vrrp:advertisement-interval?     uint32
|   +--rw vrrp:enable?                      empty
|   +--rw vrrp:hold-time?                   uint32
|   +--rw vrrp:preempt-mode?                empty
|   +--rw vrrp:priority?                    uint8
|   +--rw vrrp:description?                 string
+--rw vrrp:vrrpe [vrid]
|   +--rw vrrp:vrid                          vrid-type
|   +--rw vrrp:virtual-ip [virtual-ipaddr]
|   |   +--rw vrrp:virtual-ipaddr          inet:ipv4-address
|   +--rw vrrp:track
|   |   +--rw vrrp:interface [interface-type interface-name]
|   |   |   +--rw vrrp:interface-type      track-itype
|   |   |   +--rw vrrp:interface-name      track-ifname
|   |   |   +--rw vrrp:track-priority?     uint8
|   +--rw vrrp:advertisement-interval?     uint32
|   +--rw vrrp:enable?                      empty
|   +--rw vrrp:hold-time?                   uint32
|   +--rw vrrp:preempt-mode?                empty
|   +--rw vrrp:priority?                    uint8
|   +--rw vrrp:description?                 string
|   +--rw vrrp:advertise-backup?            empty
|   +--rw vrrp:vrrpe-garp-timer?           uint32
|   +--rw vrrp:backup-advertisement-interval? uint32
|   +--rw vrrp:short-path-forwarding?      empty

+--rw interface-vlan
|   +--rw interface
|   |   +--rw ve [name]
|   |   |   +--rw name                      ve-type
|   |   +--rw ip
|   |   |   +--rw vrrp:vrrp [vrid]
|   |   |   |   +--rw vrrp:vrid              vrid-type
|   |   |   |   +--rw vrrp:virtual-ip [virtual-ipaddr]
|   |   |   |   |   +--rw vrrp:virtual-ipaddr inet:ipv4-address
|   |   |   |   +--rw vrrp:track
|   |   |   |   |   +--rw vrrp:interface [interface-type interface-name]
|   |   |   |   |   |   +--rw vrrp:interface-type      track-itype
|   |   |   |   |   |   +--rw vrrp:interface-name      track-ifname
|   |   |   |   |   |   +--rw vrrp:track-priority?     uint8
|   |   |   |   +--rw vrrp:advertisement-interval?     uint32
|   |   |   |   +--rw vrrp:enable?                      empty
|   |   |   |   +--rw vrrp:hold-time?                   uint32
|   |   |   |   +--rw vrrp:preempt-mode?                empty
|   |   |   |   +--rw vrrp:priority?                    uint8
|   |   |   |   +--rw vrrp:description?                 string
|   |   |   +--rw vrrp:vrrpe [vrid]
|   |   |   |   +--rw vrrp:vrid                          vrid-type
|   |   |   |   +--rw vrrp:virtual-ip [virtual-ipaddr]
|   |   |   |   |   +--rw vrrp:virtual-ipaddr          inet:ipv4-address
|   |   |   |   +--rw vrrp:track
|   |   |   |   |   +--rw vrrp:interface [interface-type interface-name]
|   |   |   |   |   |   +--rw vrrp:interface-type      track-itype
|   |   |   |   |   |   +--rw vrrp:interface-name      track-ifname
|   |   |   |   |   |   +--rw vrrp:track-priority?     uint8

```

2 brocade-vrrp

```
+--rw vrrp:advertisement-interval?      uint32
+--rw vrrp:enable?                       empty
+--rw vrrp:hold-time?                   uint32
+--rw vrrp:preempt-mode?                 empty
+--rw vrrp:priority?                    uint8
+--rw vrrp:description?                  string
+--rw vrrp:advertise-backup?             empty
+--rw vrrp:vrrpe-garp-timer?             uint32
+--rw vrrp:backup-advertisement-interval? uint32
+--rw vrrp:short-path-forwarding?        empty
```

RPCs None

Actions None

brocade-vswitch

Description This management submodule is an instrumentation to manage Virtual switch features.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-vswitch
  +--rw vcenter [id]
    +--rw id          common-def:name-string32
    +--rw credentials
      | +--rw url?      vcenter-url
      | +--rw username? string
      | +--rw password? string
    +--rw activate?    empty
    +--rw interval?    uint32
    +--rw discovery
      +--rw ignore-delete-all-response
        +--rw ignore-value? uint32
        +--rw always?       empty
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-common-def
  +--ro vnetwork
```

RPCs Custom RPCs defined in this module follow.

```
+---x get-vnetwork-hosts
  | +--ro input
  | | +--ro vcenter          string
  | | +--ro datacenter?     string
  | | +--ro name?           string
  | | +--ro last-rcvd-instance? uint32
  | +--ro output
  | | +--ro vnetwork-hosts
  | | | +--ro name?          string
  | | | +--ro vmnic?         string
  | | | +--ro datacenter?    string
  | | | +--ro mac?           yang:mac-address
  | | | +--ro vswitch?       string
  | | | +--ro interface-type? enumeration
  | | | +--ro interface-name? union
  | | | +--ro has-more?      boolean
  | | | +--ro instance-id?   uint32
+---x get-vnetwork-vms
  | +--ro input
  | | +--ro name?            string
  | | +--ro vcenter          string
  | | +--ro datacenter?     string
  | | +--ro last-rcvd-instance? uint32
  | +--ro output
  | | +--ro vnetwork-vms
  | | | +--ro name?          string
  | | | +--ro mac?           yang:mac-address
  | | | +--ro datacenter?    string
  | | | +--ro ip?            inet:ip-address
  | | | +--ro host-nn?       string
  | | | +--ro has-more?      boolean
  | | | +--ro instance-id?   uint32
```

```

+---x get-vnetwork-dvpgs
|   +--ro input
|   |   +--ro name?                string
|   |   +--ro vcenter              string
|   |   +--ro datacenter?         string
|   |   +--ro last-rcvd-instance? uint32
|   +--ro output
|   |   +--ro vnetwork-dvpgs
|   |   |   +--ro name?            string
|   |   |   +--ro datacenter?     string
|   |   |   +--ro dvs-nn?         string
|   |   |   +--ro vlan?           string
|   |   +--ro has-more?           boolean
|   |   +--ro instance-id?       uint32
+---x get-vnetwork-dvs
|   +--ro input
|   |   +--ro name?                string
|   |   +--ro vcenter              string
|   |   +--ro datacenter?         string
|   |   +--ro last-rcvd-instance? uint32
|   +--ro output
|   |   +--ro vnetwork-dvs
|   |   |   +--ro name?            string
|   |   |   +--ro host?            string
|   |   |   +--ro datacenter?     string
|   |   |   +--ro pnic?           string
|   |   |   +--ro interface-type? enumeration
|   |   |   +--ro interface-name? union
|   |   +--ro has-more?           boolean
|   |   +--ro instance-id?       uint32
+---x get-vnetwork-vswitches
|   +--ro input
|   |   +--ro name?                string
|   |   +--ro vcenter              string
|   |   +--ro datacenter?         string
|   |   +--ro last-rcvd-instance? uint32
|   +--ro output
|   |   +--ro vnetwork-vswitches
|   |   |   +--ro name?            string
|   |   |   +--ro host?            string
|   |   |   +--ro datacenter?     string
|   |   |   +--ro pnic?           string
|   |   |   +--ro interface-type? enumeration
|   |   |   +--ro interface-name? union
|   |   +--ro has-more?           boolean
|   |   +--ro instance-id?       uint32
+---x get-vnetwork-portgroups
|   +--ro input
|   |   +--ro name?                string
|   |   +--ro vcenter              string
|   |   +--ro datacenter?         string
|   |   +--ro last-rcvd-instance? uint32
|   +--ro output
|   |   +--ro vnetwork-pgs
|   |   |   +--ro name?            string
|   |   |   +--ro datacenter?     string
|   |   |   +--ro vs-nn?          string
|   |   |   +--ro vlan?           string
|   |   |   +--ro host-nn?        string
|   |   +--ro has-more?           boolean

```



```
|      +--ro instance-id?      uint32
+---x get-vmpolicy-macaddr
  +--ro input
  |   +--ro mac?               yang:mac-address
  |   +--ro vcenter            string
  |   +--ro datacenter?       string
  |   +--ro last-rcvd-instance? uint32
  +--ro output
  |   +--ro vmpolicy-macaddr
  |   |   +--ro mac?          yang:mac-address
  |   |   +--ro name?         string
  |   |   +--ro datacenter?   string
  |   |   +--ro dvpg-nn?      string
  |   |   +--ro port-nn?      string
  |   |   +--ro port-prof?    string
  |   +--ro has-more?         boolean
  +--ro instance-id?          uint32
```

Actions Proprietary actions defined in this module follow.

```

module: brocade-common-def
  +--rw datacenter
    +--rw input
      +--ro vcenter                                string

module: brocade-common-def
  +--rw hosts
    +--ro input
      | +--ro vcenter                                string
      | +--ro datacenter?                            string
      | +--ro name?                                  string
      | +--ro last-rcvd-instance?                    uint32
    +--ro output
      +--ro vnetwork-hosts
        | +--ro name?                                string
        | +--ro vmnic?                               string
        | +--ro datacenter?                          string
        | +--ro mac?                                 yang:mac-address
        | +--ro vswitch?                             string
        | +--ro interface-type?                      enumeration
        | +--ro interface-name?                      union
      +--ro has-more?                                boolean
      +--ro instance-id?                            uint32

module: brocade-common-def
  +--rw vms
    +--ro input
      | +--ro name?                                  string
      | +--ro vcenter                                string
      | +--ro datacenter?                            string
      | +--ro last-rcvd-instance?                    uint32
    +--ro output
      +--ro vnetwork-vms
        | +--ro name?                                string
        | +--ro mac?                                 yang:mac-address
        | +--ro datacenter?                          string
        | +--ro ip?                                  inet:ip-address
        | +--ro host-nn?                             string
      +--ro has-more?                                boolean
      +--ro instance-id?                            uint32

```

```

module: brocade-common-def
  +--rw dvpgs
    +--ro input
      | +--ro name?          string
      | +--ro vcenter        string
      | +--ro datacenter?    string
      | +--ro last-rcvd-instance? uint32
    +--ro output
      +--ro vnetwork-dvpgs
        | +--ro name?      string
        | +--ro datacenter? string
        | +--ro dvs-nn?    string
        | +--ro vlan?      string
        +--ro has-more?    boolean
        +--ro instance-id? uint32

module: brocade-common-def
  +--rw dvs
    +--ro input
      | +--ro name?          string
      | +--ro vcenter        string
      | +--ro datacenter?    string
      | +--ro last-rcvd-instance? uint32
    +--ro output
      +--ro vnetwork-dvs
        | +--ro name?      string
        | +--ro host?      string
        | +--ro datacenter? string
        | +--ro pnic?      string
        | +--ro interface-type? enumeration
        | +--ro interface-name? union
        +--ro has-more?    boolean
        +--ro instance-id? uint32

module: brocade-common-def
  +--rw vss
    +--ro input
      | +--ro name?          string
      | +--ro vcenter        string
      | +--ro datacenter?    string
      | +--ro last-rcvd-instance? uint32
    +--ro output
      +--ro vnetwork-vswitches
        | +--ro name?      string
        | +--ro host?      string
        | +--ro datacenter? string
        | +--ro pnic?      string
        | +--ro interface-type? enumeration
        | +--ro interface-name? union
        +--ro has-more?    boolean
        +--ro instance-id? uint32

module: brocade-common-def
  +--rw pgs
    +--ro input
      | +--ro name?          string
      | +--ro vcenter        string
      | +--ro datacenter?    string
      | +--ro last-rcvd-instance? uint32

```

```

+--ro output
  +--ro vnetwork-pgs
    | +--ro name?          string
    | +--ro datacenter?   string
    | +--ro vs-nn?        string
    | +--ro vlan?         string
    | +--ro host-nn?      string
    +--ro has-more?       boolean
    +--ro instance-id?    uint32

module: brocade-common-def
+--rw macaddr
  +--ro input
    | +--ro mac?          yang:mac-address
    | +--ro vcenter       string
    | +--ro datacenter?   string
    | +--ro last-rcvd-instance?  uint32
  +--ro output
    +--ro vmpolicy-macaddr
      | +--ro mac?        yang:mac-address
      | +--ro name?       string
      | +--ro datacenter? string
      | +--ro dvpg-nn?    string
      | +--ro port-nn?    string
      | +--ro port-prof?  string
      +--ro has-more?     boolean
      +--ro instance-id?  uint32

```

brocade-xstp

Description Provides a data model for managing the Spanning Tree Protocols globally and for each interface. The model supports the following protocols:

- Spanning Tree Protocol (STP)
- Rapid STP
- Multiple Spanning Tree Protocol (MSTP)
- Per-VLAN Spanning Tree (PVST)
- Rapid PVST

Top-level containers None

External augmentations Nodes that augment other modules and their subtrees follow.

```

module: brocade-interface
  +--rw interface
  |   +--rw gigabitethernet [name]
  |   |   +--rw xstp:bpdu-drop
  |   |   |   +--rw xstp:enable?    empty
  |   |   +--rw xstp:spanning-tree
  |   |   |   +--rw xstp:autoedge?    empty
  |   |   |   +--rw xstp:cost?        uint32
  |   |   |   +--rw xstp:portfast
  |   |   |   |   +--rw xstp:portfastbasic?    empty
  |   |   |   |   +--rw xstp:bpdu-guard?      empty
  |   |   |   |   +--rw xstp:bpdu-filter?     empty
  |   |   |   +--rw xstp:edgeport
  |   |   |   |   +--rw xstp:edgeportbasic?    empty
  |   |   |   |   +--rw xstp:bpdu-guard?      empty
  |   |   |   |   +--rw xstp:bpdu-filter?     empty
  |   |   |   +--rw xstp:guard
  |   |   |   |   +--rw xstp:root?    empty
  |   |   |   +--rw xstp:hello-time?    uint32
  |   |   |   +--rw xstp:bpdu-mac?      enumeration
  |   |   |   +--rw xstp:link-type?     enumeration
  |   |   |   +--rw xstp:priority?      uint32
  |   |   |   +--rw xstp:restricted-role? empty
  |   |   |   +--rw xstp:restricted-tcn? empty
  |   |   |   +--rw xstp:shutdown?      empty
  |   |   +--rw xstp:vlan [id]
  |   |   |   +--rw xstp:id            uint32
  |   |   |   +--rw xstp:cost?        uint32
  |   |   |   +--rw xstp:priority?    uint32
  |   |   |   +--rw xstp:guard
  |   |   |   |   +--rw xstp:root?    empty
  |   |   +--rw xstp:instance [id]
  |   |   |   +--rw xstp:id            uint8
  |   |   |   +--rw xstp:cost?        uint32
  |   |   |   +--rw xstp:priority?    uint32
  |   |   |   +--rw xstp:restricted-role? empty
  |   |   |   +--rw xstp:restricted-tcn? empty
  |   +--rw tengigabitethernet [name]
  |   |   +--rw xstp:bpdu-drop
  |   |   |   +--rw xstp:enable?    empty
  |   |   +--rw xstp:spanning-tree

```

```

+--rw xstp:autoedge?          empty
+--rw xstp:cost?              uint32
+--rw xstp:portfast
|   +--rw xstp:portfastbasic?  empty
|   +--rw xstp:bpdu-guard?     empty
|   +--rw xstp:bpdu-filter?    empty
+--rw xstp:edgeport
|   +--rw xstp:edgeportbasic?  empty
|   +--rw xstp:bpdu-guard?     empty
|   +--rw xstp:bpdu-filter?    empty
+--rw xstp:guard
|   +--rw xstp:root?           empty
+--rw xstp:hello-time?        uint32
+--rw xstp:bpdu-mac?          enumeration
+--rw xstp:link-type?         enumeration
+--rw xstp:priority?          uint32
+--rw xstp:restricted-role?   empty
+--rw xstp:restricted-tcn?    empty
+--rw xstp:shutdown?          empty
+--rw xstp:vlan [id]
|   +--rw xstp:id              uint32
|   +--rw xstp:cost?           uint32
|   +--rw xstp:priority?       uint32
|   +--rw xstp:guard
|       +--rw xstp:root?       empty
+--rw xstp:instance [id]
|   +--rw xstp:id              uint8
|   +--rw xstp:cost?           uint32
|   +--rw xstp:priority?       uint32
|   +--rw xstp:restricted-role? empty
|   +--rw xstp:restricted-tcn? empty
+--rw fortygigabitethernet [name]
|   +--rw xstp:bpdu-drop
|       +--rw xstp:enable?     empty
+--rw xstp:spanning-tree
|   +--rw xstp:autoedge?          empty
|   +--rw xstp:cost?              uint32
|   +--rw xstp:portfast
|       +--rw xstp:portfastbasic?  empty
|       +--rw xstp:bpdu-guard?     empty
|       +--rw xstp:bpdu-filter?    empty
+--rw xstp:edgeport
|   +--rw xstp:edgeportbasic?  empty
|   +--rw xstp:bpdu-guard?     empty
|   +--rw xstp:bpdu-filter?    empty
+--rw xstp:guard
|   +--rw xstp:root?           empty
+--rw xstp:hello-time?        uint32
+--rw xstp:bpdu-mac?          enumeration
+--rw xstp:link-type?         enumeration
+--rw xstp:priority?          uint32
+--rw xstp:restricted-role?   empty
+--rw xstp:restricted-tcn?    empty
+--rw xstp:shutdown?          empty
+--rw xstp:vlan [id]
|   +--rw xstp:id              uint32
|   +--rw xstp:cost?           uint32
|   +--rw xstp:priority?       uint32
|   +--rw xstp:edgeportbasic?  empty
|   +--rw xstp:bpdu-guard?     empty

```

```

| | | +--rw xstp:bpdu-filter?      empty
+--rw xstp:guard
| | | +--rw xstp:root?      empty
+--rw xstp:hello-time?      uint32
+--rw xstp:bpdu-mac?        enumeration
+--rw xstp:link-type?        enumeration
+--rw xstp:priority?        uint32
+--rw xstp:restricted-role?  empty
+--rw xstp:restricted-tcn?   empty
+--rw xstp:shutdown?        empty
+--rw xstp:vlan [id]
| | | +--rw xstp:id          uint32
| | | +--rw xstp:cost?      uint32
| | | +--rw xstp:priority?  uint32
| | | +--rw xstp:guard
| | | | +--rw xstp:root?    empty
+--rw xstp:instance [id]
| | | +--rw xstp:id          uint8
| | | +--rw xstp:cost?      uint32
| | | +--rw xstp:priority?  uint32
| | | +--rw xstp:restricted-role?  empty
| | | +--rw xstp:restricted-tcn?   empty
+--rw port-channel [name]
| | | +--rw xstp:bpdu-drop
| | | | +--rw xstp:enable?    empty
+--rw xstp:spanning-tree
| | | +--rw xstp:autoedge?    empty
| | | +--rw xstp:cost?        uint32
+--rw xstp:portfast
| | | +--rw xstp:portfastbasic?  empty
| | | +--rw xstp:bpdu-guard?    empty
| | | +--rw xstp:bpdu-filter?   empty
+--rw xstp:edgeport
| | | +--rw xstp:edgeportbasic?  empty
| | | +--rw xstp:bpdu-guard?    empty
| | | +--rw xstp:bpdu-filter?   empty
+--rw xstp:guard
| | | +--rw xstp:root?    empty
+--rw xstp:hello-time?    uint32
+--rw xstp:bpdu-mac?      enumeration
+--rw xstp:link-type?      enumeration
+--rw xstp:priority?      uint32
+--rw xstp:restricted-role?  empty
+--rw xstp:restricted-tcn?   empty
+--rw xstp:shutdown?        empty
+--rw xstp:vlan [id]
| | | +--rw xstp:id          uint32
| | | +--rw xstp:cost?      uint32
| | | +--rw xstp:priority?  uint32
| | | +--rw xstp:guard
| | | | +--rw xstp:root?    empty
+--rw xstp:instance [id]
| | | +--rw xstp:id          uint8
| | | +--rw xstp:cost?      uint32
| | | +--rw xstp:priority?  uint32
| | | +--rw xstp:restricted-role?  empty
| | | +--rw xstp:restricted-tcn?   empty
+--rw protocol
+--rw xstp:spanning-tree
+--rw xstp:stp?

```

```

| +-rw xstp:description?          string
| +-rw xstp:bridge-priority?      uint32
| +-rw xstp:error-disable-timeout
| | +-rw xstp:enable?            empty
| | +-rw xstp:interval?         uint32
| +-rw xstp:forward-delay?        uint32
| +-rw xstp:max-age?              uint32
| +-rw xstp:port-channel
| | +-rw xstp:path-cost?         enumeration
| +-rw xstp:shutdown?            empty
| +-rw xstp:hello-time?          uint32
+--rw xstp:rstp?
| +-rw xstp:description?          string
| +-rw xstp:bridge-priority?      uint32
| +-rw xstp:error-disable-timeout
| | +-rw xstp:enable?            empty
| | +-rw xstp:interval?         uint32
| +-rw xstp:forward-delay?        uint32
| +-rw xstp:max-age?              uint32
| +-rw xstp:port-channel
| | +-rw xstp:path-cost?         enumeration
| +-rw xstp:shutdown?            empty
| +-rw xstp:hello-time?          uint32
| +-rw xstp:transmit-holdcount?   uint32
+--rw xstp:pvst?
| +-rw xstp:description?          string
| +-rw xstp:bridge-priority?      uint32
| +-rw xstp:error-disable-timeout
| | +-rw xstp:enable?            empty
| | +-rw xstp:interval?         uint32
| +-rw xstp:forward-delay?        uint32
| +-rw xstp:max-age?              uint32
| +-rw xstp:port-channel
| | +-rw xstp:path-cost?         enumeration
| +-rw xstp:shutdown?            empty
| +-rw xstp:hello-time?          uint32
| +-rw xstp:vlan [id]
| | +-rw xstp:id                  uint32
| | +-rw xstp:priority?           uint32
| | +-rw xstp:forward-delay?      uint32
| | +-rw xstp:max-age?            uint32
| | +-rw xstp:hello-time?         uint32
+--rw xstp:rpvst?
| +-rw xstp:description?          string
| +-rw xstp:bridge-priority?      uint32
| +-rw xstp:error-disable-timeout
| | +-rw xstp:enable?            empty
| | +-rw xstp:interval?         uint32
| +-rw xstp:forward-delay?        uint32
| +-rw xstp:max-age?              uint32
| +-rw xstp:port-channel
| | +-rw xstp:path-cost?         enumeration
| +-rw xstp:shutdown?            empty
| +-rw xstp:hello-time?          uint32
| +-rw xstp:vlan [id]
| | +-rw xstp:id                  uint32
| | +-rw xstp:priority?           uint32
| | +-rw xstp:forward-delay?      uint32
| | +-rw xstp:max-age?            uint32
| | +-rw xstp:hello-time?         uint32

```

2 brocade-xstp

```

|   +-rw xstp:transmit-holdcount?      uint32
+--rw xstp:mstp?
|   +-rw xstp:description?             string
|   +-rw xstp:bridge-priority?          uint32
|   +-rw xstp:error-disable-timeout
|   |   +-rw xstp:enable?               empty
|   |   +-rw xstp:interval?            uint32
|   +-rw xstp:forward-delay?           uint32
|   +-rw xstp:max-age?                  uint32
|   +-rw xstp:port-channel
|   |   +-rw xstp:path-cost?            enumeration
|   +-rw xstp:shutdown?                 empty
|   +-rw xstp:cisco-interoperability?   enumeration
|   +-rw xstp:instance [id]
|   |   +-rw xstp:id                    uint8
|   |   +-rw xstp:vlan?                 xstp-ui32-vlan-range
|   |   +-rw xstp:priority?            uint32
|   +-rw xstp:region?                   string
|   +-rw xstp:revision?                  uint16
|   +-rw xstp:max-hops?                  uint32
|   +-rw xstp:transmit-holdcount?      uint32

```

RPCs None

Actions None

brocade-xstp-ext

Description	Provides a data model for obtaining operational data about the Spanning Tree Protocol.
Top-level containers	None
External augmentations	None
RPCs	Custom RPCs defined in this module follow.

```

+---x get-stp-brief-info
|   +--ro input
|   |   +--ro (request-type)?
|   |   |   +---: (getnext-request)
|   |   |   +--ro last-rcvd-instance
|   |   |   +--ro instance-id?   uint32
|   +--ro output
|   |   +--ro spanning-tree-info
|   |   |   +--ro stp-mode?      stp-type
|   |   |   +--ro (spanning-tree-mode)?
|   |   |   |   +---: (stp)
|   |   |   |   |   +--ro stp
|   |   |   |   |   |   +--ro root-bridge
|   |   |   |   |   |   |   +--ro priority?      uint32
|   |   |   |   |   |   |   +--ro bridge-id?      bridge-id-type
|   |   |   |   |   |   |   +--ro hello-time?      uint32
|   |   |   |   |   |   |   +--ro max-age?         uint32
|   |   |   |   |   |   |   +--ro forward-delay?   uint32
|   |   |   |   |   +--ro bridge
|   |   |   |   |   |   +--ro priority?      uint32
|   |   |   |   |   |   +--ro bridge-id?      bridge-id-type
|   |   |   |   |   |   +--ro hello-time?      uint32
|   |   |   |   |   |   +--ro max-age?         uint32
|   |   |   |   |   |   +--ro forward-delay?   uint32
|   |   |   +--ro port
|   |   |   |   +--ro interface-type?          enumeration
|   |   |   |   +--ro interface-name?          union
|   |   |   |   +--ro spanningtree-enabled?    boolean
|   |   |   |   +--ro if-index?                uint64
|   |   |   |   +--ro interface-id?            uint64
|   |   |   |   +--ro if-role?                  stp-port-role
|   |   |   |   +--ro if-state?                 stp-port-state
|   |   |   |   +--ro external-path-cost?      uint32
|   |   |   |   +--ro internal-path-cost?      uint32
|   |   |   |   +--ro configured-path-cost?    uint32
|   |   |   |   +--ro designated-port-id?      uint64
|   |   |   |   +--ro port-priority?           uint32
|   |   |   |   +--ro designated-bridge-id?    bridge-id-type
|   |   |   |   +--ro port-hello-time?         uint32
|   |   |   |   +--ro forward-transitions-count? uint32
|   |   |   |   +--ro received-stp-type?       stp-type
|   |   |   |   +--ro transmitted-stp-type?    stp-type
|   |   |   |   +--ro edge-port?               on-off-type
|   |   |   |   +--ro auto-edge?               yes-no-type
|   |   |   |   +--ro admin-edge?              yes-no-type
|   |   |   |   +--ro edge-delay?              uint32

```

```

        +--ro configured-root-guard?      on-off-type
        +--ro oper-root-guard?             on-off-type
        +--ro boundary-port?               yes-no-type
        +--ro oper-bpdu-guard?             on-off-type
        +--ro oper-bpdu-filter?            on-off-type
        +--ro link-type?                   stp-link-type
        +--ro rx-bpdu-count?                uint64
        +--ro tx-bpdu-count?                uint64
+---:(rstp)
  +--ro rstp
    +--ro root-bridge
      | +--ro priority?                    uint32
      | +--ro bridge-id?                  bridge-id-type
      | +--ro hello-time?                 uint32
      | +--ro max-age?                     uint32
      | +--ro forward-delay?              uint32
    +--ro bridge
      | +--ro priority?                    uint32
      | +--ro bridge-id?                  bridge-id-type
      | +--ro hello-time?                 uint32
      | +--ro max-age?                     uint32
      | +--ro forward-delay?              uint32
    +--ro transmit-hold-count?             uint32
    +--ro migrate-time?                     uint32
    +--ro port
      +--ro interface-type?                enumeration
      +--ro interface-name?                union
      +--ro spanningtree-enabled?          boolean
      +--ro if-index?                      uint64
      +--ro interface-id?                  uint64
      +--ro if-role?                       stp-port-role
      +--ro if-state?                      stp-port-state
      +--ro external-path-cost?            uint32
      +--ro internal-path-cost?            uint32
      +--ro configured-path-cost?          uint32
      +--ro designated-port-id?            uint64
      +--ro port-priority?                 uint32
      +--ro designated-bridge-id?          bridge-id-type
      +--ro port-hello-time?               uint32
      +--ro forward-transitions-count?     uint32
      +--ro received-stp-type?             stp-type
      +--ro transmitted-stp-type?          stp-type
      +--ro edge-port?                     on-off-type
      +--ro auto-edge?                     yes-no-type
      +--ro admin-edge?                    yes-no-type
      +--ro edge-delay?                    uint32
      +--ro configured-root-guard?         on-off-type
      +--ro oper-root-guard?               on-off-type
      +--ro boundary-port?                 yes-no-type
      +--ro oper-bpdu-guard?               on-off-type
      +--ro oper-bpdu-filter?              on-off-type
      +--ro link-type?                     stp-link-type
      +--ro rx-bpdu-count?                  uint64
      +--ro tx-bpdu-count?                  uint64
+---:(mstp)
  +--ro mstp
    +--ro root-bridge
      | +--ro priority?                    uint32
      | +--ro bridge-id?                  bridge-id-type
      | +--ro hello-time?                 uint32

```

```

|   +--ro max-age?          uint32
|   +--ro forward-delay?    uint32
+--ro bridge
|   +--ro priority?         uint32
|   +--ro bridge-id?        bridge-id-type
|   +--ro hello-time?       uint32
|   +--ro max-age?          uint32
|   +--ro forward-delay?    uint32
+--ro transmit-hold-count?  uint32
+--ro migrate-time?         uint32
+--ro port
|   +--ro interface-type?    enumeration
|   +--ro interface-name?    union
|   +--ro spanningtree-enabled? boolean
|   +--ro if-index?          uint64
|   +--ro interface-id?      uint64
|   +--ro if-role?           stp-port-role
|   +--ro if-state?          stp-port-state
|   +--ro external-path-cost? uint32
|   +--ro internal-path-cost? uint32
|   +--ro configured-path-cost? uint32
|   +--ro designated-port-id? uint64
|   +--ro port-priority?     uint32
|   +--ro designated-bridge-id? bridge-id-type
|   +--ro port-hello-time?   uint32
|   +--ro forward-transitions-count? uint32
|   +--ro received-stp-type? stp-type
|   +--ro transmitted-stp-type? stp-type
|   +--ro edge-port?         on-off-type
|   +--ro auto-edge?         yes-no-type
|   +--ro admin-edge?        yes-no-type
|   +--ro edge-delay?        uint32
|   +--ro configured-root-guard? on-off-type
|   +--ro oper-root-guard?    on-off-type
|   +--ro boundary-port?     yes-no-type
|   +--ro oper-bpdu-guard?    on-off-type
|   +--ro oper-bpdu-filter?   on-off-type
|   +--ro link-type?          stp-link-type
|   +--ro rx-bpdu-count?     uint64
|   +--ro tx-bpdu-count?     uint64
+--:(pvstp)
|   +--ro pvstp [vlan-id]
|   |   +--ro vlan-id          interface:vlan-type
|   |   +--ro root-bridge
|   |   |   +--ro priority?      uint32
|   |   |   +--ro bridge-id?     bridge-id-type
|   |   |   +--ro hello-time?    uint32
|   |   |   +--ro max-age?       uint32
|   |   |   +--ro forward-delay? uint32
|   |   +--ro bridge
|   |   |   +--ro priority?      uint32
|   |   |   +--ro bridge-id?     bridge-id-type
|   |   |   +--ro hello-time?    uint32
|   |   |   +--ro max-age?       uint32
|   |   |   +--ro forward-delay? uint32
|   |   +--ro transmit-hold-count? uint32
|   |   +--ro migrate-time?       uint32
|   |   +--ro port
|   |   |   +--ro interface-type? enumeration
|   |   |   +--ro interface-name? union

```

```

+--ro spanningtree-enabled?      boolean
+--ro if-index?                  uint64
+--ro interface-id?              uint64
+--ro if-role?                   stp-port-role
+--ro if-state?                  stp-port-state
+--ro external-path-cost?        uint32
+--ro internal-path-cost?        uint32
+--ro configured-path-cost?      uint32
+--ro designated-port-id?        uint64
+--ro port-priority?             uint32
+--ro designated-bridge-id?      bridge-id-type
+--ro port-hello-time?           uint32
+--ro forward-transitions-count? uint32
+--ro received-stp-type?         stp-type
+--ro transmitted-stp-type?      stp-type
+--ro edge-port?                 on-off-type
+--ro auto-edge?                 yes-no-type
+--ro admin-edge?                yes-no-type
+--ro edge-delay?                uint32
+--ro configured-root-guard?     on-off-type
+--ro oper-root-guard?           on-off-type
+--ro boundary-port?             yes-no-type
+--ro oper-bpdu-guard?           on-off-type
+--ro oper-bpdu-filter?          on-off-type
+--ro link-type?                 stp-link-type
+--ro rx-bpdu-count?             uint64
+--ro tx-bpdu-count?             uint64
+--: (rpvstp)
+--ro rpvstp [vlan-id]
+--ro vlan-id                    interface:vlan-type
+--ro root-bridge
| +--ro priority?                uint32
| +--ro bridge-id?              bridge-id-type
| +--ro hello-time?             uint32
| +--ro max-age?                uint32
| +--ro forward-delay?          uint32
+--ro bridge
| +--ro priority?                uint32
| +--ro bridge-id?              bridge-id-type
| +--ro hello-time?             uint32
| +--ro max-age?                uint32
| +--ro forward-delay?          uint32
+--ro transmit-hold-count?       uint32
+--ro migrate-time?              uint32
+--ro port
+--ro interface-type?            enumeration
+--ro interface-name?            union
+--ro spanningtree-enabled?      boolean
+--ro if-index?                  uint64
+--ro interface-id?              uint64
+--ro if-role?                   stp-port-role
+--ro if-state?                  stp-port-state
+--ro external-path-cost?        uint32
+--ro internal-path-cost?        uint32
+--ro configured-path-cost?      uint32
+--ro designated-port-id?        uint64
+--ro port-priority?             uint32
+--ro designated-bridge-id?      bridge-id-type
+--ro port-hello-time?           uint32
+--ro forward-transitions-count? uint32

```

```

|         +--ro received-stp-type?          stp-type
|         +--ro transmitted-stp-type?       stp-type
|         +--ro edge-port?                  on-off-type
|         +--ro auto-edge?                  yes-no-type
|         +--ro admin-edge?                 yes-no-type
|         +--ro edge-delay?                 uint32
|         +--ro configured-root-guard?      on-off-type
|         +--ro oper-root-guard?            on-off-type
|         +--ro boundary-port?              yes-no-type
|         +--ro oper-bpdu-guard?            on-off-type
|         +--ro oper-bpdu-filter?           on-off-type
|         +--ro link-type?                  stp-link-type
|         +--ro rx-bpdu-count?              uint64
|         +--ro tx-bpdu-count?              uint64
|     +--ro has-more?                       boolean
|     +--ro last-instance
|         +--ro instance-id?                uint32
+---x get-stp-mst-detail
+--ro input
|   +--ro (request-type)?
|   +--: (getnext-request)
|   +--ro last-rcvd-instance
|   +--ro instance-id?                      uint32
+--ro output
+--ro cist
|   +--ro cist-root-id?                     bridge-id-type
|   +--ro cist-bridge-id?                   bridge-id-type
|   +--ro cist-reg-root-id?                 bridge-id-type
|   +--ro root-forward-delay?               uint32
|   +--ro hello-time?                      uint32
|   +--ro max-age?                         uint32
|   +--ro max-hops?                        uint32
|   +--ro migrate-time?                    uint32
|   +--ro vlans
|   |   +--ro vlan-id*                      interface:vlan-type
+--ro port
|   +--ro interface-type?                   enumeration
|   +--ro interface-name?                   union
|   +--ro spanningtree-enabled?             boolean
|   +--ro if-index?                        uint64
|   +--ro interface-id?                    uint64
|   +--ro if-role?                         stp-port-role
|   +--ro if-state?                        stp-port-state
|   +--ro external-path-cost?               uint32
|   +--ro internal-path-cost?              uint32
|   +--ro configured-path-cost?             uint32
|   +--ro designated-port-id?              uint64
|   +--ro port-priority?                   uint32
|   +--ro designated-bridge-id?            bridge-id-type
|   +--ro port-hello-time?                 uint32
|   +--ro forward-transitions-count?       uint32
|   +--ro received-stp-type?               stp-type
|   +--ro transmitted-stp-type?            stp-type
|   +--ro edge-port?                       on-off-type
|   +--ro auto-edge?                       yes-no-type
|   +--ro admin-edge?                      yes-no-type
|   +--ro edge-delay?                      uint32
|   +--ro configured-root-guard?           on-off-type
|   +--ro oper-root-guard?                 on-off-type
|   +--ro boundary-port?                   yes-no-type

```

```

|      +--ro oper-bpdu-guard?          on-off-type
|      +--ro oper-bpdu-filter?        on-off-type
|      +--ro link-type?               stp-link-type
|      +--ro rx-bpdu-count?           uint64
|      +--ro tx-bpdu-count?           uint64
+--ro msti [instance-id]
|   +--ro instance-id                 uint32
|   +--ro msti-root-id?               bridge-id-type
|   +--ro msti-bridge-id?             bridge-id-type
|   +--ro msti-bridge-priority?       uint32
|   +--ro vlans
|   |   +--ro vlan-id*   interface:vlan-type
+--ro port
|   +--ro interface-type?             enumeration
|   +--ro interface-name?             union
|   +--ro spanningtree-enabled?       boolean
|   +--ro if-index?                   uint64
|   +--ro interface-id?               uint64
|   +--ro if-role?                    stp-port-role
|   +--ro if-state?                   stp-port-state
|   +--ro external-path-cost?         uint32
|   +--ro internal-path-cost?         uint32
|   +--ro configured-path-cost?       uint32
|   +--ro designated-port-id?         uint64
|   +--ro port-priority?              uint32
|   +--ro designated-bridge-id?       bridge-id-type
|   +--ro port-hello-time?            uint32
|   +--ro forward-transitions-count?  uint32
|   +--ro received-stp-type?          stp-type
|   +--ro transmitted-stp-type?       stp-type
|   +--ro edge-port?                  on-off-type
|   +--ro auto-edge?                  yes-no-type
|   +--ro admin-edge?                 yes-no-type
|   +--ro edge-delay?                 uint32
|   +--ro configured-root-guard?      on-off-type
|   +--ro oper-root-guard?            on-off-type
|   +--ro boundary-port?              yes-no-type
|   +--ro oper-bpdu-guard?            on-off-type
|   +--ro oper-bpdu-filter?          on-off-type
|   +--ro link-type?                 stp-link-type
|   +--ro rx-bpdu-count?              uint64
|   +--ro tx-bpdu-count?              uint64
+--ro has-more?                       boolean
+--ro last-instance
|   +--ro instance-id?               uint32

```

Actions None

brocade-zone

Description Provides a data model for configuring zones and retrieving operational zoning information.

Top-level containers Top-level nodes and their subtree hierarchies follow.

```
module: brocade-zone
  +--rw zoning
    +--rw defined-configuration
      | +--rw cfg [cfg-name]
      | | +--rw cfg-name      string
      | | +--rw member-zone [zone-name]
      | | | +--rw zone-name    string
      | | +--rw zone [zone-name]
      | | | +--rw zone-name      string
      | | | +--rw member-entry [entry-name]
      | | | | +--rw entry-name  string
      | | +--rw alias [alias-name]
      | | | +--rw alias-name    string
      | | | +--rw member-entry [alias-entry-name]
      | | | | +--rw alias-entry-name  string
      +--rw enabled-configuration
        +--rw cfg-name?      string
        +--rw default-zone-access?  default-zone-access-type
        +--rw cfg-action?    cfg-action-type
```

External augmentations Nodes that augment other modules and their subtrees follow.

```
module: brocade-common-def
  +--rw show
    | +--rw brocade-zone:zoning
```

RPCs Custom RPCs defined in this module follow.

```
+---x show-zoning-enabled-configuration
  +--ro input
    | +--ro (request-type)?
    | | +--ro (get-request)
    | | | +--ro zone-name-pattern?  string
    | | +--ro (get-next-request)
    | | | +--ro last-rcvd-zone-name?  string
  +--ro output
    +--ro enabled-configuration
      +--ro cfg-name?      string
      +--ro enabled-zone [zone-name]
      | +--ro zone-name      string
      | +--ro member-entry [entry-name]
      | | +--ro entry-name  string
      +--ro has-more?      boolean
```

Actions Proprietary actions defined in this module follow.

```
module: brocade-common-def
  +--rw show
    +--rw brocade-zone:zoning
      action brocade-zone:operation-info
        input
        output
        +--ro brocade-zone:db-max      uint32
```

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```
+--ro brocade-zone:db-avail          uint32
+--ro brocade-zone:db-committed      uint32
+--ro brocade-zone:db-transaction    uint32
+--ro brocade-zone:transaction-token uint32
+--ro brocade-zone:last-zone-changed-timestamp string
+--ro brocade-zone:last-zone-committed-timestamp string
```


Custom RPCs

Table 5 list the custom RPCs, their locations, and a brief synopsis.

TABLE 5 Custom RPCs

RPC name	Host module	Synopsis
activate-status	brocade-firmware	Returns firmware activation status.
bnacfgcmd	brocade-ras	Copies configuration data to and from the system
bnacfgcmd-status	brocade-ras	Returns the status of the last configuration command.
fcoe-get-interface	brocade-fcoe-ext	Returns operational state details for an FCoE interface.
fcoe-get-login	brocade-fcoe-ext	Returns the login information about FCoE end nodes that have logged in to the managed device.
fwdl-status	brocade-firmware	Returns the status of the firmware download operation.
get-arp	brocade-arp	Returns ARP entries of the managed entity.
get-interface-detail	brocade-interface-ext	Returns operational details of all the possible interfaces of the managed entity. Use this RPC to discover basic characteristics of all the interfaces in the system. Each sublayer below the internetwork layer of a network interface is considered to be an interface.
get-interface-switchport	brocade-interface-ext	Returns switch-port or Layer 2 characteristics of all the interfaces in the managed device.
get-ip-interface	brocade-interface-ext	Return brief details of all interfaces, loopback and VE interface details of particular managed entity. Phy interface details of particular managed entity cannot be given
get-last-config-update-time	brocade-vcs	Returns the time stamp of the last configuration change done on the managed device.
get-last-config-update-time-for-xpaths	brocade-vcs	Returns the time stamp of the last configuration change done on the managed device for Xpaths.
get-mac-acl-for-intf	brocade-mac-access-list	Returns information about the MAC ACL applied on the specified interfaces.
get-mac-address-table	brocade-mac-address-table	Returns the MAC address table for a given MAC address.

TABLE 5 Custom RPCs (Continued)

RPC name	Host module	Synopsis
get-media-detail	brocade-interface-ext	Returns the media properties of all the interfaces of the managed entity.
get-netconf-client-capabilities	brocade-netconf-ext	Returns the vendor information for all NETCONF clients.
get-port-channel-detail	brocade-lag	Returns link aggregation control configuration parameters for all the port-channels in the system.
get-portchannel-info-by-intf	brocade-lag	Returns link aggregation control configuration parameters for a given aggregation port in the system.
get-port-profile-for-intf	brocade-port-profile-ext	Returns the port-profiles applied on ports and port-channels.
get-port-profile-status	brocade-port-profile-ext	Returns the status of a port-profile.
get-stp-brief-info	brocade-xstp-ext	Returns Spanning Tree Protocol (STP) information.
get-stp-mst-detail	brocade-xstp-ext	Returns Multiple Spanning Tree Protocol (MSTP) details.
get-system-uptime	brocade-system	Returns the time since the managed entity was last reinitialized.
get-vcs-details	brocade-vcs	Retains detailed VCS fabric information.
get-vlan-brief	brocade-interface-ext	Returns operational data for a given VLAN and enumeration of all the interfaces belonging to this VLAN.
get-vmpolicy-macaddr	brocade-vswitch.yang	Takes vCenter name as mandatory input, datacenter name as optional input. All is not supported input anymore. Datacenter name added in output.
get-vnetwork-dvpgs	brocade-vswitch.yang	Takes vCenter name as mandatory input, datacenter name as optional input. All is not supported input anymore. Datacenter name added in output.
get-vnetwork-dvs	brocade-vswitch.yang	Takes vCenter name as mandatory input, datacenter name as optional input. All is not supported input anymore. Datacenter name added in output.
get-vnetwork-hosts	brocade-vswitch.yang	Takes vCenter name as mandatory input, datacenter name as optional input. All is not supported input anymore. Datacenter name added in output.
get-vnetwork-portgroups	brocade-vswitch.yang	Takes vCenter name as mandatory input, datacenter name as optional input. All is not supported input anymore. Datacenter name added in output.

TABLE 5 Custom RPCs (Continued)

RPC name	Host module	Synopsis
get-vnetwork-vms	brocade-vswitch.yang	Takes vCenter name as mandatory input, datacenter name as optional input. All is not supported input anymore. Datacenter name added in output.
get-vnetwork-vswitches	brocade-vswitch.yang	Takes vCenter name as mandatory input, datacenter name as optional input. All is not supported input anymore. Datacenter name added in output. Returns discovered virtual switches.
l2traceroute	brocade-trilloam	Traces a TRILL route from a host source MAC address to a destination MAC address.
l2traceroute-result	brocade-trilloam	Returns the result of a TRILL traceroute.
logical-chassis-fwdl-sanity	brocade-firmware	Retrieves firmware download sanity check status.
logical-chassis-fwdl-status	brocade-firmware	Retrieves firmware activation status.
no-vcs-rbridge-context	brocade-vcs	Disables VCS Fabric mode.
show-clock	brocade-clock	Returns the date, time, and time zone.
show-fibrechannel-interface-info	brocade-fabric-service	Provides detailed information of Fibre Channel ports in the routing bridge.
show-firmware-version	brocade-firmware-ext	Returns firmware version information.
show-linkinfo	brocade-fabric-service	Returns details of all the links connected in the fabric.
show-ntp	brocade-ntp	Returns the active NTP server for the Brocade VCS fabric or specified switch.
show-portindex-interface-info	brocade-fabric-service	Returns the details of 10 Gb Ethernet and FCoE ports.
show-raslog	brocade-ras-ext	Returns RASlog entries.
show-support-save-status	brocade-ras-ext	Returns information about the status of a recent support save request.
show-system-info	brocade-ras-ext	Returns the routing bridge ID and MAC address of the switch.
show-system-monitor	brocade-system-monitor-ext	Returns system status information.
show-vcs	brocade-vcs	Provides general VCS fabric information.
show-zoning-enabled-configuration	brocade-zone	Returns the current zoning configuration information
user-session-info	brocade-aaa-ext	Returns user role information.
vcs-rbridge-context	brocade-vcs	Sets VCS Fabric mode for a given routing bridge.

A Custom RPCs

Actions

Table 6 list actions, their locations, and a brief description of its purpose.

TABLE 6 **Actions**

Action name	Host module	Node	Purpose
activate	brocade-fc-auth	secpolicy/action	Activates all the defined FC authorization policies.
activate	brocade-firmware	firmware	Activates the firmware download.
add	brocade-license	common-def:show/license	Adds the license keys.
all	brocade-fabric-service	common-def:show/fabric	Returns fabric information.
audit	brocade-distributedlog	common-def:show/log	Displays VCS fabric-related log information.
auditlog	brocade-ras-ext	common-def:clear/logging	Clears the audit log.
auditlog	brocade-ras-ext	common-def:show/logging	Shows audit log information.
autoupload	brocade-ras-ext	common-def:show/autoupload	Shows autoupload configuration information.
brief	brocade-nameserver	common-def:show/name-server:name-server	This function is to get a list of devices, listed by FCID, that are stored in the Name Server database.
burninerrclear	brocade-diagnostics	diag	Clears the errors that are stored in the nonvolatile storage on the slot during the burn-in process.
chassis	brocade-beacon	beacon/disable	Disables the chassis beacon
chassis	brocade-beacon	beacon/enable	Enables the chassis beacon.
chassis	brocade-ras-ext	common-def:show/infra	Returns system information.
chassisreboot	brocade-ha	ha	Reboots the chassis.
clearerror	brocade-diagnostics	diag	Clears the diagnostics failure status.
clock	brocade-clock	clock-set-datetime	Sets the date and time.
clock	brocade-clock	clock-set-timezone	Sets the local time zone.
commit	brocade-firmware	firmware/download	Commits a firmware upgrade after evaluation.
cpu	brocade-ras-ext	common-def:show/infra/process	Lists processes by CPU usage.
datacenter	brocade-vswitch	common-def:show/vnetwork	Shows discovered datacenters.
detail	brocade-nameserver	common-def:show/name-server:name-server	Returns details about the configured name server.
dhchap	brocade-fc-auth	auth-secret	Configures authorization secret for DH-CHAP.
dhchap	brocade-fc-auth	common-def:no/fcsp/auth-secret	Deletes the authorization secret for DH-CHAP.
dhchap	brocade-fc-auth	common-def:show/fscsp/auth-secret	Return the device WWN for which a shared secret is configured.
dir	brocade-ras	system/usb	Displays the directory of a USB device.

TABLE 6 **Actions (Continued)**

Action name	Host module	Node	Purpose
disable	brocade-chassis	chassis	Disables the chassis.
disable	brocade-chassis	chassis/beacon	Disables the chassis beacon
disable	brocade-firmware	firmware/auto-sync	Disables the firmware download.
disable	brocade-ha	ha	Disables high availability.
disable	brocade-ras	system/autoupload	Disables automatic upload of support data.
dpod	brocade-license	common-def:show/license/ nh-show-license-keys	Displays DPOD license information.
dump	brocade-ha	ha	Displays high availability status information.
dvpgs	brocade-vswitch	common-def:show/vnetwork	Shows discovered distributed virtual port-groups.
dvs	brocade-vswitch	common-def:show/vnetwork	Shows discovered distributed virtual switches.
enable	brocade-chassis	chassis	Enables the chassis.
enable	brocade-chassis	chassis/beacon	Enables the chassis beacon
enable	brocade-firmware	firmware/auto-sync	Enables the firmware download.
enable	brocade-ha	ha	Enables high availability.
enable	brocade-ras	system/autoupload	Enables automatic support data upload.
exec	brocade-diagnostics	fos	Runs native Fabric OS commands.
failover	brocade-ha	ha	Causes HA failover.
fan	brocade-ras-ext	common-def:show/infra/envi ronment	Shows fan information.
fastboot	brocade-firmware	reboot	Reboots the control processor (CP), bypassing the power-on self-tests (POSTs)
features	brocade-firmware-ext	common-def:show/firmware	Returns firmware features.
firmware	brocade-firmware-ext	common-def:show/firmware	Shows firmware auto-sync status
firmwaredownloadhi story	brocade-firmware-ext	common-def:show/firmware	Returns a history of firmware downloads.
firmwaredownloadst atus	brocade-firmware-ext	common-def:show/firmware	Returns the firmware download status.
firmware-features	brocade-firmware-ext	common-def:show/firmware	Show firmware features.
ftp	brocade-firmware	firmware/download	Downloads firmware with FTP.
ftp	brocade-firmware	firmware/download/logical-c hassis	Downloads firmware with FTP for logical chassis.
ftp	brocade-ras	copy/support	Uploads support data to an FTP server.
gmsg	brocade-ras	auditlog	Generates an audit log message for an internal audit log test.
gmsg	brocade-ras	logtest/raslog	Generates a message for an internal RASlog test.
ha	brocade-ha	common-def:show/ha	Displays the HA state.
history	brocade-ras-ext	common-def:show/infra	Shows history information.
hosts	brocade-vswitch	common-def:show/vnetwork	Shows discovered hosts.

TABLE 6 Actions (Continued)

Action name	Host module	Node	Purpose
id	brocade-license	common-def:show/license:license	Returns license IDs.
info	brocade-ras-ext	common-def:show/infra/process	Shows system processes.
interactive	brocade-firmware	firmware/download	Downloads firmware interactively.
interface	brocade-beacon	beacon/disable	Disables the interface beacon.
interface	brocade-beacon	beacon/enable	Enables the interface beacon.
interface	brocade-threshold-monitor-ext	brocade-common-def:show/defaults/brocade-threshold-monitor-ext:threshold	Shows default threshold and alert values for interface.
isl	brocade-fabric-service	common-def:show/fabric-service:fabric	Returns fabric ISL information.
islports	brocade-fabric-service	common-def:show/fabric-service:fabric	Returns fabric ISL port information.
l2traceroute	brocade-trilloam	trilloam	Traces a route between a source and destination MAC address.
ldapca	brocade-certutil	certutil/import	Imports the LDAP CA certificate.
ldapca	brocade-certutil	common-def:no/certutil:certutil	Deletes the LDAP CA certificate.
ldapcert	brocade-certutil	common-def:show/certutil:certutil	Displays the LDAP CA certificate.
license	brocade-license	common-def:show/license:enh-show-license-keys	Displays license information.
linecard	brocade-linecard-management	common-def:show/linecardinfo	Displays line card information.
linkinfo	brocade-fabric-service	common-def:show/fabric-service:fabric	Returns fabric ISL link information.
macaddr	brocade-vswitch	common-def:show/vnetwork/vmpolicy	Returns information about MAC address policies.
memory	brocade-ras-ext	common-def:show/infra/process	Lists processes by memory usage.
mm	brocade-linecard-management	common-def:show/mm:info	Displays management module information.
monitor	brocade-system-monitor-ext	common-def:show/system-monitor-extensions:system	Returns monitor switch status.
monitor	brocade-threshold-monitor-ext	common-def:show/threshold-monitor-extensions:system	Returns monitor switch error statistics on an interface.
multicast	brocade-fabric-service	fabric/route	Displays multicast routing information, includes the multicast tree, its root, priority, and so on. A multicast tree is a loop free tree consisting of all nodes in cluster. Usually, the node with lowest RBridge-ID becomes the root. BUM traffic is always forwarded on the multicast tree (regardless of VLAN ID)

TABLE 6 **Actions (Continued)**

Action name	Host module	Node	Purpose
neighbor-state	brocade-fabric-state	fabric/route	Displays the FSPF link state information of a node. A <i>full</i> state indicates FSPF link state database exchange is complete and that the link can be used while making routing decisions.
nodefind	brocade-nameserver	common-def:show/name-server:name-server	Displays nodes matching a specified WWN or PID.
off	brocade-ras	system/usb	Disables the USB device.
on	brocade-ras	system/usb	Enables the USB device.
operation-info	brocade-zone	common-def:show/brocade-zone:zoning	Returns zone database size information and the time stamp of the last change.
pathinfo	brocade-fabric-service	fabric/route	Displays routing information and states along a path covering multiple switches.
pgs	brocade-vswitch	common-def:show/vnetwork	Returns information about discovered standard port-groups.
portledtest	brocade-diagnostics	diag	Runs various action modes on the port LEDs and validates the functionality.
portloopbacktest	brocade-diagnostics	diag	Sends frames between various ASICs on the switch and validates the ASIC functionality.
port-side-exhaust	brocade-chassis	fan/airflow-direction	Sets the airflow direction to exhaust-side intake.
port-side-intake	brocade-chassis	fan/airflow-direction	Sets the airflow direction to port-side intake.
power	brocade-ras-ext	common-def:show/infra/environment	Shows power information.
power-off	brocade-linecard-management	linecardservice	Powers off a line card.
power-on	brocade-linecard-management	linecardservice	Powers on a line card.
prbstest	brocade-diagnostics	diag	Performs pseudo-random binary-sequence tests.
raslog	brocade-ras-ext	common-def:clear/logging	Clears the RASlog.
raslog	brocade-ras-ext	common-def:show/logging	Shows RASlog information.
recover	brocade-firmware	firmware	Aborts the firmware operation that is ready to be activated and then commits the firmware.
redundancy	brocade-ha	common-def:show/redundancy	Shows high availability redundancy state.
reload	brocade-ha	common-def:show/system/reload	Reloads the system.
remove	brocade-license	license	Removes the license keys.
remove	brocade-ras	system/usb	Deletes a file from a USB device.
restore	brocade-firmware	firmware/download	Restores the original firmware after evaluation.
sanity-check	brocade-firmware	firmware/download	Sanity check on the firmware download.
scp	brocade-firmware	firmware/download	Downloads firmware with SCP.
scp	brocade-firmware	firmware/download/logical-chassis	Downloads firmware with SCP for logical chassis.

TABLE 6 Actions (Continued)

Action name	Host module	Node	Purpose
scp	brocade-ras	copy/support	Uploads support data to an SCP server.
security	brocade-threshold-monitor-ext	common-def:show/defaults	Displays default threshold and alert values for security
sensor	brocade-ras-ext	common-def:show/infra/environment	Returns sensor information.
setcycle	brocade-diagnostics	diag	Configures all the parameters required for the system verification test.
setdbg	brocade-diagnostics	diag	Changes the debug level.
sfm	brocade-linecard-management	common-def:show/sfminfo	Displays switch fabric module information.
sfp	brocade-threshold-monitor-ext	common-def:show/defaults/threshold-monitor-extensions:threshold	Displays default threshold and alert values for SFP
sftp	brocade-firmware	firmware/download	Downloads firmware with SFTP.
sftp	brocade-firmware	firmware/download/logical-chassis	Downloads firmware with SFTP for logical-chassis.
slots	brocade-linecard-management	common-def:show/slotsinfo	Displays information about all slots.
sshkey	brocade-certutil	certutil/import	SSH public key import operation.
sshkey	brocade-certutil	common-def:no/certutil:certutil	Displays user name length error message.
sshkey	brocade-certutil	common-def:show/certutil:cert-util	Displays user name length error message.
start	brocade-ha	ha/sync	Syncs up the system.
status	brocade-ras-ext	common-def:show/copy-support	Shows copy support details.
status	brocade-sec-services	common-def:show/ssh/server	Displays the SSH server status.
status	brocade-sec-services	common-def:show/telnet/server	Displays the Telnet server status.
stop	brocade-ha	ha/sync	Syncs up the system.
support	brocade-ras-ext	common-def:clear/support	Clears support information.
support	brocade-ras-ext	common-def:show/support	Shows support information available for upload.
support-interactive	brocade-ras	copy	Enables interactive support data upload.
sync	brocade-firmware	firmware/download	Synchronizes the firmware with its peer.
syslog-ca	brocade-certutil	certutil/import	Imports the syslog server CA certificate.
syslog-ca	brocade-certutil	common-def:no/certutil:certutil	Deletes the syslog server CA certificate.
syslogcacert	brocade-certutil	common-def:show/certutil:cert-util	Displays the syslog server CA certificate.
systemverification	brocade-diagnostics	diag	Runs a combination of various hardware diagnostic tests.

TABLE 6 **Actions (Continued)**

Action name	Host module	Node	Purpose
temp	brocade-ras-ext	common-def:show/infra/environment	Shows temperature information.
timezone	brocade-clock	clock-set-timezone	Sets the timezone.
timezone	brocade-clock	common-def:no/clock-set-timezone	Returns the timezone information.
topology	brocade-fabric-service	fabric/route	Topology is the layout pattern of interconnections of the various elements. This function provides fabric topology information as seen by a VCS fabric node, including the number of currently active paths to the destination, maximum number of hops to reach destination, cost of reaching destination, and so on.
trunk	brocade-fabric-service	common-def:show/fabric-service:fabric	Returns fabric ISL trunk information.
turboramtest	brocade-diagnostics	diag	Performs a turbo static RAM (SRAM) test of the ASIC chips.
unlock	brocade-aaa	user	Unlocks a user account.
usb	brocade-firmware	firmware/download	Downloads firmware from a USB device.
usb	brocade-firmware	firmware/download/logical-chassis	Downloads firmware from a USB device for logical chassis.
usb	brocade-ras	copy	Uploads support data to a USB device.
users	brocade-aaa-ext	common-def:show/aaa-users	Accesses the user information.
version	brocade-firmware-ext	common-def:show/firmware	Returns the firmware version string.
vms	brocade-vswitch	common-def:show/vnetwork	Returns information about discovered VMs.
vss	brocade-vswitch	common-def:show/vnetwork	Returns information about standard virtual switches.
zonemember	brocade-nameserver	common-def:show/name-server:name-server	Displays all nodes zoned with a device matching a specified WWN or PID.